

Market Segmentation Components and the Productivity of Indigenous Oil and Gas Companies in Rivers State, Nigeria

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Article DOI:
10.48028/iiprds/ijrssmt.v10.i1.01

Keywords:
Behavioural
segmentation,
Demographic
segmentation.
Geographical
segmentation,
Indigenous oil and
gas companies,
Market
segmentation,
Productivity

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Abstract

Market segmentation strategies are critical to organisational success as when properly executed, aids to enhance productivity. However, most organisations despite the importance of these segmentation strategies, do not boarder, consequently, organizational losses or failures are experienced. The objective of this study was to evaluate the effect of market segmentation components (Behavioural segmentation, Geographical segmentation, Demographic segmentation) on productivity of indigenous oil and gas companies in Rivers State, Nigeria. Survey research design was adopted for the study. The population of study consist of 322 management staff of 11 indigenous oil and gas companies in River state, Nigeria. Total enumeration was used for the study sample size as the population was not large. Primary source of data collection was adopted via a validated instrument. Cronbach alpha reliability coefficients for the constructs ranged from 0.608 to 0.768 Simple random sampling technique was used and 307 copies of the questionnaire came back representing 84%. Data was analysed using descriptive and inferential statistics. Multiple regression was used to test the hypothesis. Findings indicates that Market segmentation components (Behavioural, Geographical Demographic,) have significant effect on productivity of indigenous oil and gas companies in River state, Nigeria ((Adj.R² = 0.627; F (3, 303) = 172.594, p < 0.05). The study concluded that market segmentation components have significant effect on productivity of the selected indigenous oil and gas companies in Rivers State, Nigeria. The study recommended that management of indigenous oil and gas companies in River State should conduct market research to identify their target market and their needs, preferences, locations, and behaviours as to remain sustained in business.

Background to the Study

The oil and gas sector are considered as an important input of economic development within primary energy resources that cut across the value chain of petroleum trading, marketing, distribution, and retail segments. The downstream sector of the oil and gas represents the primary engine of economic activity and prosperity in the countries of the world. The need for petroleum is increasing everyday due to the use of fuel for increased needs such as transportation, electricity consumption, heating and so on. In spite of the overall importance of this sector, relatively little quantitative information is available concerning market segmentation components and productivity as its affect the indigenous oil and gas companies.

Globally, the oil and gas industry has witnessed price fluctuations and huge uncertainty in recent time due to Russia's invasion of Ukraine which has squeezed supplies, leading to fossil fuel shortages and skyrocketing prices thereby making energy majors to enjoy bumper profits, and as a source of attractive target for government tax raids. The demand for Oil is increasing and it is expected to grow for many more years to come (international energy outlook, 2022). Leading oil and gas companies are using technology to improve their decision-making process. They are able to tap new resources, increase recovery rates, and reduce environmental impact with the help of new and upcoming technologies (IEA,2019). Despite these achievements, oil and gas sector is being faced with a second and simultaneous issue: a burgeoning over supply of crude oil driven by battle between OPEC and non-OPEC producers and these events have led to a deep imbalance in the supply/ demand scenario causing massive sell-off in oil markets in addition to current negative developments in geological exploration where companies have been recording abysmal 10% percent of success in finding oil (Eurasia Group report, 2020).

The oil and gas category in United States of America is flourishing due to the discovery of international offshore oil fields. Rising exports and imports are also contributing towards the growth of the sector. However, factors such as increasing interests for liquified natural gas, ever-changing regulatory frameworks, and the emergence of battery electric vehicles are growing complexities for business, and all these have negatively impacted the level of productivity. In several European countries power demand fell almost 20 percent in March 2020, and despite the recent economic thaw across the continent, for many, demand remains 5 to 10 percent below expected levels and these are major factors determining the poor sales volume and fallen profitability state of the oil and gas industry around the world (Deloitte oil and gas industry outlook, 2020).

In Africa, oil and gas is faced with several risks and challenges including, Political Risk, Geological Risk, Price Risk, Supply and Demand Risks, Cost Risks (Beattie,2020). With an ever-growing market in the oil and gas, continuing price volatility and inflationary costs of production and raw materials, oil companies face serious challenges in productions outputs remaining competitively priced and diversifying their services to keep going in fluctuating market. There are six major players in the petroleum industry in Kenya; Total Kenya Limited, Vivo Energy Kenya Limited (Shell Licensee), Libya Oil Kenya Limited,

Kenol Kobil, Gulf Energy and National Oil Corporation of Kenya (NOCK), which is a state corporation fully owned by the Kenyan government. Despite the liberalization of the petroleum industry in Kenya, the petroleum sector largely remains oligopolistic.

The oil and gas industry in Nigeria is currently facing significant challenges because of the volatility of oil prices, pipeline vandalism and illegal refining as a result of which the performance in the industry has been dropping. Aside from activities of oil theft, the drop in the productivity was alarming. The indigenous oil and gas industries faced huge challenges. In every aspect, the Nigerian oil and gas industry proved to be unsatisfactory, failing to meet expectations (Addeh, 2022). Even during the Covid-19 year of 2020, the industry faced a string of adverse developments that would prove to be defining. It failed to meet expectations that it would be Nigeria's primary source of revenue, unable to capitalize on increasing global oil prices and unable to provide necessary fuels to customers in the country. As if that wasn't enough problems for a single year, the Nigerian National Petroleum Corporation Limited (NNPC) suspended payments to the Federation Account in 2022, a shared pool from which the federal, state, and local governments draw revenue at the end of each month. In the first quarter of 2022, Nigeria saw an unprecedented disruption in product supply, causing damage to private and commercial vehicles and sparking the customary blame game.

Several studies have examined market segmentation from different industries in several countries (Manyando & Haq, 2018; Plomaritou, & Menelaou, 2020; Zhang, & He, 2019). All these studies looked at market segmentation from behavioural perspective in different industries. However, the linkage between the bases of market segmentation and productivity of indigenous oil and gas firms in River State Nigeria has not been properly established. This, therefore, leaves a gap that needs to be attended to in the case of market segmentation and firms' productivity in River State Nigeria. Market segmentation practice has been found to have positive effects on the performance of business organisations in Nigeria and should be given the attention it deserved for a guaranty success (Hanmaikyur, 2019). Hence the need for this study is to evaluate the effect of Market segmentation components on productivity of indigenous oil and gas companies in Rivers State, Nigeria.

Research Question

To achieve the objective of this study, following research question is asked:
How do market segmentation components affect the productivity of indigenous oil and gas companies in Rivers State, Nigeria?

Review of Literature

Market Segmentation

Market segmentation is the grouping of consumers on the basis of desired or sought benefits-often manifested in the value they are willing to pay in return for the sacrifice that they are willing to make (Kabouh et al., 2016). Market segmentation is the process of dividing a market into smaller groups of buyers with distinct needs, characteristics, or

behaviours who might require separate product or marketing mixes (Adamu, 2020). Marketers do not create a segment because segments are natural phenomena. Through segmentation research, a marketer identifies the segments and selects one or more segments to target and satisfy. Market segmentation helps businesses deal with this heterogeneity by balancing the variability in customers' needs with the limits of available resources. Segmentation is fundamental to successful marketing strategies (Adamu, 2020).

Behavioral Segmentation

Asiedu (2018), define behavioural segmentation as the process of dividing the individual customers into smaller units based on their attitude and the rate of their usage of the product. According to Ernst and Dolnicar (2018), a wide range of possible behaviours can be used for this purpose, including prior experience with the product, frequency of purchase, amount spent on purchasing the product on each occasion (or across multiple purchase occasions), and information search behaviour. In behavioural segmentation, marketers divide buyers into groups on the basis of their knowledge of attitude toward, use of or respond to a product (Kotler & Keller, 2017). Singh and Verma (2018) and Lantos (2015), show that consumers are split into smaller units based on their awareness and attitude towards the use of a commodity in behavioral segmentation. For multiple items, it is simple to find the consumer. In buying decisions, there are five roles: initiators, influencers, decision leaders, purchasers, and consumers. The underlying aim of behavioural-based market segmentation is to group customers with similar needs and buying behavior into segments, thereby facilitating each segment being targeted by a distinct product and marketing offerings to be developed to suit the requirements of different customer segments (Kabuoh et al., 2021).

Geographical Segmentation

According to Mawoli and Aliyu (2017), geographical segmentation entails dividing a broad market into geographic units such as continents (Africa, America, Europe, Asia, and Australia), nations (Nigeria, Ghana, Niger, and Mali. etc.), regions (North-West, North-East, North-Central, South-West, South-South, and South-East), cities (Lagos, Ibadan, Port Harcourt, Abuja, Kano, Kaduna, Maiduguri, Sokoto, etc.) or neighborhoods. According to Ernst and Dolnicar (2018), when geographic segmentation is used – the consumer's location of residence serves as the only criterion to form market segments. While simple, the geographic segmentation approach is often the most appropriate. Understanding customer's behaviours has key marketing strategies as it facilitates the development of targeted marketing programs (Mudogo, 2019). According to Chisom (2022) geographical segmentation is a sort of market segmentation in which prospective customers are divided into groups according to where they live. Furthermore, Grzegorzec (2022) discussed that geographic market segmentation divides the market into different geographical units. It assumes that people who live in one place will be different, have different needs and wants, from consumers living in other areas.

Demographic Segmentation

Several scholars have defined segmentation based on demographic characteristics. Mahdzar, and Abd-Gani (2018), define it as dividing the market into units including gender, age, education level, income, occupation, nationality, and ethnicity. Demographic segmentation is the use basic demographic characteristics to segment the market - such as age, sex, family size, marital status, family life cycle, generation, ethnicity, nationality, religion, income, occupation and education (Kabuoh et al, 2016). Demographic segmentation is a precise form of audience identification based on data points like age, gender, marital status, family size, income, education, race, occupation, nationality, and/or religion (Mialki, 2022). Demographic segmentation is a market segmentation technique where an organization's target market is segmented based on demographic variables such as age, gender, education, income, etc. It helps organizations understand who their customers are so that their needs can be addressed more effectively.

Productivity

Productivity is generally considered to be the efficient utilization of organizational resources (OECD, 2019). At firm level, productivity is a measure of a firm's ability to utilize its inputs to make as much output as possible. It is common sense that there has to be a relationship between firm performance and productivity. The increase in productivity could lead to better profitability for the firm thanks to decreasing the cost per unit produced. However, this common knowledge is not enough in the modern business environment. Productivity implies the relationship between output and input over the same period of time (Mohanty & Rastogi, 1986). However, since the firm often employs a bundle of resources or input such as labour, capital, material, energy and others to produce output, there are several ways of defining and measuring productivity (Prakash et al., 2017). Partial productivity measures like labour productivity and capital productivity indicate the ratio of total output to one class of input. Among partial productivity measures, labour productivity is the best-known type (OECD, 2019). According to organization economic cooperation and development (OECD) (2016), productivity is defined as the ratio of a volume measure of output to a volume measure of input. Productivity depends on the efficiency and technologies with which human, physical and natural resources are used in the process of production of goods and services.

Empirical Review

Market Segmentation Components and Productivity

Several studies like that of Choi et al., (2020); Ervianty and Vokasi (2019); Kabeyi (2018); Khan et al., (2018); Manyando and Haq (2018) have been carried out on market segmentation components (behavioural, geographic and demographic segmentations) and productivity. While some reported positive relationships between the variables, others reported moderate, insignificant and negative relationships between the variables. Kabeyi (2018), studied Michael porter's five competitive forces and generic strategies, market segmentation strategy using the competitive global smartphone manufacturing industry. It was observed that the smartphone industry has a few players in

manufacturing and with heavy capital costs limiting entry. The market is characterized by plenty of innovation through research and development which also increases the entry costs and harden exit for the players as the manufacturers are relatively few, but competition can be said to be falling between intense and low. Efemena et al., (2022) did a study on market segmentation and customer satisfaction in MTN Nigeria limited, Lagos. The result of regression analysis revealed that demographic, psychographic and behavioural segmentation were found to have positive effect on customer satisfaction thereby enhancing the company's productivity. Likewise, the revelation of the study of Dryglasa and Salamagab (2019) which found that segments differ from each other with respect to socio demographic, behavioural and psychographic factors and that segments delineated have important implications for scholars, allowing them to understand the socio-demographic profile of tourists visiting spa resorts, their behaviours and the way they evaluate services, infrastructure and attractiveness of spa resorts.

Theoretical Framework

The theory underpinning this study is the resource-advantage (R-A) theory of competition (Hunt & Morgan, 1995), R-A theory maintains that firms that are successful in developing market offerings that provide more value to consumers in specific market segments and/or provide market offerings at a lower cost (relative to their competitors) will occupy marketplace positions of competitive advantage, and in turn, positions of competitive advantage led to superior financial performance. Therefore, R-A theory shows how market segmentation strategies impact firm performance. R-A theory permits the success of market segmentation strategy. The theory's foundational premises view intra-industry demand as inherently heterogeneous. The theory, by means of its treatment of resources, accounts for the behaviors of firms that often choose to produce and market a variety of market offerings in the same industry. The theory, by means of the marketplace position matrix, explicates the mechanism by which a market segment strategy can lead to superior financial performance.

R-A theory suggests that to be successful, firms must examine the nature of competition in the segments that they target (or are considering targeting). The nature of segments differs; thus, organizations do attain different competitive level as far as each segment is concerned, therefore, there is need for organizations to familiarize themselves with market offerings of their rivals on a segment basis. Main considerations to determine an organisation's marketplace standing include: Consumers' perceptions regarding the value of market offerings compared to those of rivals and; the cost (relative to competitors) of the resources used to produce the market offerings. Firms will have competitive advantages over rivals when they produce more valuable market offerings and/or produce market offerings more efficiently than rivals. The fit between a firm and its strategy is one of the key factors influencing successful strategy implementation (Vorhies & Morgan 2003). That is, firms whose resource sets match more closely those required by a specific segmentation strategy are more likely to be successful.

Methodology

The study adopted survey research design. Research philosophy is positivism, Research approach is quantitative while Research context is that the study investigated the effect of market segmentation and productivity of indigenous oil and gas companies in River state, Nigeria. The population of study consist of 322 management staff of 11 indigenous oil and gas companies in River state, Nigeria. Total enumeration technique was used for the study as the population is not large. A pilot study was conducted using the regular staff of Seplat oil ltd and Oilserv oil and gas, engineering and Construction Company in Lagos State, given that they share similar attributes with the oil and gas companies under investigation. A sample of 32 representing 10% of the sample size was used for the study. Cronbach alpha reliability coefficients for the constructs ranged from 0.605 to 0.786.

Simple random sampling technique was used. Primary source of data was adopted, and a validated questionnaire was used to collect data with a total of 307 questionnaire returned representing 84%. Data was analysed using descriptive and inferential statistics. The descriptive analysis was used in the study to analyse demographic data and responses to the questionnaire items. Multiple regression was used for the hypothesis testing.

Data Analysis

Research Question: How do market segmentation components affect the productivity of indigenous oil and gas companies in Rivers State, Nigeria?

Table 1: Descriptive Statistics on Behavioural Segmentation

Items		High	Moderately High	Moderately Low	Low	Very Low	Mean	Standard Deviation
Ability to segment your market on occasional buying	77.5%	18.6%	2.6%	1.0%	0.3%	0.0%	5.72	0.594
Segmenting the market in terms of benefit to be derived	65.5%	28.7%	4.9%	1.0%	0.0%	0.0%	5.59	0.633
By segmenting the market using customer's status	69.7%	21.5%	6.8%	2.0%	0.0%	0.0%	5.59	0.705
Dividing the market looking at the rate of usage	65.1%	29.0%	5.2%	0.3%	0.3%	0.0%	5.58	0.638
Making use of attitude for segmenting your market	66.1%	26.1%	5.2%	2.6%	0.0%	0.0%	5.56	0.713
Average							5.61	0.657

Source: Researchers' Field Survey, 2023

Table 2: Descriptive Statistics on Geographical Segmentation

Items	Very High	High	Moderately High	Moderately Low	Low	Very Low	Mean	Standard Deviation
Considering a region for segmenting your market	73.0%	20.2%	4.6%	2.0%	0.0%	0.3%	5.63	0.713
Ability to use city metro for your market segment	58.6%	31.9%	7.5%	1.6%	0.3%	0.0%	5.47	0.733
Ability to use climate as bases of segmenting the market	63.5%	29.0%	4.6%	2.3%	0.7%	0.0%	5.52	0.747
Ability to segment the market using urban/rural density of the location.	62.5%	29.0%	7.5%	0.7%	0.3%	0.0%	5.53	0.692
Segmenting the market using different state locations	66.4%	23.8%	7.8%	2.0%	0.0%	0.0%	5.55	0.723
Average							5.54	0.722

Source: Researchers' Field Survey, 2023

Table 3: Descriptive Statistics on Demographic Segmentation

Items	Very High	High	Moderately High	Moderately Low	Low	Very Low	Mean	Standard Deviation
Ability to segment the market based on industry	73.9%	20.8%	4.6%	0.3%	0.0%	0.3%	5.67	0.630
Effective market segmentation using company size	58.6%	33.9%	6.2%	1.0%	0.3%	0.0%	5.50	0.688
Segmenting the market using income	66.1%	27.4%	4.2%	1.6%	0.3%	0.3%	5.56	0.731
Effective market segmentation base on family size	61.2%	30.0%	6.5%	1.6%	0.7%	0.0%	5.50	0.747
Using occupation as the bases of market segmentation	66.8%	23.5%	6.5%	2.6%	0.3%	0.3%	5.53	0.801
Average							5.55	0.719

Source: Researchers' Field Survey, 2023

Table 4: Descriptive Statistics on Productivity

Items	Very High	High	Moderately High	Moderately Low	Low	Very Low	Mean	Standard Deviation
Employee output	77.5%	20.5%	1.6%	0.0%	0.3%	0.0%	5.75	0.510
Revenue generated	67.8%	26.7%	3.9%	1.6%	0.0%	0.0%	5.61	0.645
Resource usage	68.1%	26.4%	5.5%	0.0%	0.0%	0.0%	5.63	0.588
Production efficiency	64.8%	28.3%	5.9%	0.7%	0.0%	0.3%	5.56	0.685
Employee commitment	67.4%	26.7%	4.2%	1.6%	0.0%	0.0%	5.60	0.651
							5.63	0.616

Source: Researchers' Field Survey, 2023

Hypothesis Testing

Restatement of Research Hypothesis One

Ho: Market segmentation components have no significant effect on productivity.

Multiple regression analysis was used to test the hypothesis. The independent sub-variables are Market segmentation components (behavioural segmentation, geographical segmentation and demographic segmentation), while the dependent variable was Productivity. In the analysis, data for Market segmentation components were created by adding together responses of all the items under the various dimensions to generate independent scores for each dimension. Data for Productivity was generated by adding together responses of all items under the variable to create index of Productivity. The results of the analysis and parameter estimates obtained are presented in Table 5.

Table 5: Summary of multiple regression analysis for effect of Market Segmentation Components on Productivity of Oil and Gas Companies in River State, Nigeria.

N	Model	B	T	Sig.	ANOVA (Sig.)	R	Adjusted R ²	F (3, 303)
307	(Constant)	6.599	6.867	.000	0.000 ^b	0.794 ^a	0.627	172.594
	Behavioural segmentation	.332	6.107	.000				
	Geographical segmentation	.244	4.618	.000				
	Demographic segmentation	.197	3.663	.000				
a. Dependent Variable: Productivity								
b. Predictors: (Constant), Demographic Segmentation, Behavioural Segmentation, Geographical Segmentation								

Source: Researchers' Field Survey, 2023

Table 5 shows the multiple regression analysis results for the market segmentation components on productivity of oil and gas companies in Rivers State, Nigeria as a case study. The results showed that behavioural segmentation ($\beta = 0.332$, $t = 6.107$, $p < 0.05$), geographical segmentation ($\beta = 0.244$, $t = 4.618$, $p < 0.05$) and demographic segmentation ($\beta = 0.197$, $t = 3.663$, $p < 0.05$) all have positive and significant effect on productivity of oil and gas companies in River State, Nigeria. The results of the analysis revealed that all three components of market segmentation (behavioural segmentation, geographical segmentation and demographic segmentation) have significant effect on productivity of oil and gas companies in Rivers State, Nigeria. This implies that, behavioural segmentation, geographical segmentation and demographic segmentation are important predictors of productivity among the surveyed oil and gas companies in Rivers State, Nigeria.

The R value of 0.794 supports this result and it indicates that market segmentation components have a fairly strong and positive relationship with the productivity of oil and gas companies in Rivers State, Nigeria. The coefficient of multiple determination Adj. $R^2 = 0.627$ indicates that about 62.7% variation that occurs in the productivity of oil and gas companies in Nigeria can be accounted for by the components of market segmentation components while the remaining 37.3% changes that occurs is accounted for by other variables not captured in the model. The predictive and prescriptive multiple regression models are thus expressed:

$$\text{PRO} = 6.599 + 0.332\text{BS} + 0.244\text{GS} + 0.197\text{DS} + U_i \text{-----Eqn i (Predictive Model)}$$

$$\text{PRO} = 6.599 + 0.332\text{BS} + 0.244\text{GS} + 0.197\text{DS} + U_i \text{-----Eqn i}$$

(Prescriptive Model)

- Where:
- BS = Behavioral Segmentation
 - GS = Geographical Segmentation
 - DS = Demographical Segmentation
 - PRO = Productivity

The regression model shows that holding market segmentation components to a constant zero, productivity would be 6.599 which is positive. The predictive model is the same as the prescriptive model because all the components of market segmentation (behavioural segmentation, geographical segmentation and demographic segmentation) were significant. This implies that the selected oil and gas companies in Rivers State should pay close attention to all the components in order to enhance productivity. The results of the multiple regression analysis as seen in the prescriptive model indicate that when all the variables of variables of market segmentation components (behavioural segmentation, geographical segmentation and demographic segmentation) are improved by one unit, productivity would also increase by 0.332, 0.244 and 0.197 respectively. This implies that an increase in behavioural segmentation, geographical segmentation and demographic segmentation would lead to an increase in the productivity of oil and gas companies in Nigeria. Also, the F-statistics ($df = 3,303$) = 172.594 at $p = 0.000$ ($p < 0.05$) indicates that the

overall model is significant in predicting the effect of market segmentation components on productivity which implies that market segmentation components are important determinants in the productivity of oil and gas companies in Nigeria. These findings suggest that oil and gas companies in the Nigerian state of Rivers should employ effective market segmentation strategies in order to increase productivity. This may involve targeting specific customer categories based on their behaviour, location, or demographics. By doing so, businesses may be able to better tailor their products and services to their customers' needs, resulting to increased sales and profits. In addition, management decisions should be influenced by the prescriptive model to ensure that the most effective actions for boosting productivity based on market segmentation variables are taken. Therefore, the null hypothesis (H_0) which states that market segmentation components have no significant effect on Productivity of Oil and Gas companies in River State, Nigeria was rejected.

Discussion of Findings

The results of the multiple regression revealed that all three components of market segmentation behavioural segmentation, geographical segmentation and demographic segmentation all have significant effect on productivity of oil and gas companies in Rivers State, Nigeria result (*Adj. R*² = 0.627; *F* 3,303) = 172.594; *p*<0.05). This implies that, behavioural segmentation, geographical segmentation and demographic segmentation are important factors among the surveyed oil and gas companies in Rivers State, Nigeria is positive an implication that improvement in dimension of market segmentation will lead to higher productivity of oil and gas companies in Rivers State, Nigeria. Connected to the study findings, Efemena et al., (2022) who did a study on market segmentation and customer satisfaction in MTN Nigeria limited, Lagos. The result of regression analysis revealed that demographic, psychographic and behavioural segmentation were found to have positive effect on customer satisfaction thereby enhancing the company's productivity.

The result supports the study of Dryglasa and Salamagab (2019) which found that segments differ from each other with respect to socio demographic, behavioural and psychographic factors and that segments delineated have important implications for scholars, allowing them to understand the socio-demographic profile of tourists visiting spa resorts. In congruence with the study findings is Manyando and Haq (2018) who examined "Market segmentation from a behavioral perspective: An empirical investigation of the carpet industry in Turkey" as a result of Market segmentation based on a behavioral perspective that poses challenges for both incumbents and new entrants in Turkey's carpet industry in addition to the tremendous growth and productivity.

Moreover, Ervianty and Vokasi (2019), concurred to with the implementation of market segmentation strategy to increase the number of customers of a healthy food and beverage product in Surabaya across the three segments under study and the results showed that the application of marketing segmentation strategies can increase the number of customers who buy healthy food and beverage products of the X brand

boosted the productivity of the company. Also in tandem with this study result is Khan et al., (2018) who conducted a conceptual study on the use of branding and market segmentation in hotel marketing basing their arguments on the fact that brand creation makes the management of hotels more complex and can lead to inefficiency which the hotel management must decide if branding is a useful tactic or not. They argue that not all organisations have the resources to implement market segmentation and smaller operators find it increasingly difficult to compete against larger competitors. They found that the use of branding has enabled market segmentation and delivered financial and organisational growth for hotel operators. In contrast, the work of Yang et al., (2020), that investigated market segmentation necessarily discourages energy efficiency?' found an inverse U-shaped relationship between market segmentation and energy efficiency.

R-A theory is in alignment with this study as it shows how market segmentation strategies impact firm performance. R-A theory permits the success of market segmentation strategy. The theory's foundational premises view intra-industry demand as inherently heterogeneous. In summary, the results of hypothesis revealed that market segmentation dimensions such as behavioural, demographic, and psychographic have a substantial impact on the productivity of selected oil and gas companies in Rivers State, Nigeria. The significance of market segmentation in enhancing productivity, has been highlighted in other research studies, which are consonant with these findings.

Conclusion and Recommendations

The main objective of this study was to investigate the effect of market segmentation components (behavioural segmentation, geographical segmentation, demographic segmentation) on productivity of indigenous oil and gas companies in River State, Nigeria. The study concluded that market segmentation dimensions have significant effect on productivity of the selected indigenous oil and gas companies in Rivers State, Nigeria.

Based on the findings of this study, it is considered pertinent to make the following recommendations:

The findings show that market segmentation components have significant effect on the productivity of the selected Nigerian indigenous oil and gas firms operating in River State, Nigeria.

1. It is recommended that management of indigenous oil and gas companies in River State should conduct market research to identify their target market and their needs, preferences, and behaviours.
2. This will help the companies to tailor their products and services to meet the needs of their customers, thus improving their productivity.
3. The companies should monitor and evaluate the results of their market segmentation strategy. This will help them to identify areas for improvement and make necessary adjustments to improve productivity.

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