

Price Competition Among Retailers Of Coca Cola Products In Ibadan Metropolis, Nigeria

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ABSTRACT: The study was carried out on price competition among retail marketers of Coca-Cola products in Ibadan metropolis. A total of one hundred and ten retailers' was randomly sampled from three Local Government Areas in Ibadan. Ordinary Least Square regression model was used for the analysis of the study. The findings of the study were that there were price variation in the Coca-Cola retail market that is monopolistically competitive in nature, and that these price variations were influenced by municipality characteristics, market conditions and store characteristics. It is therefore, recommended that more entries of retail marketers should be encouraged to reduce the monopolistic powers of the few retail marketers in the business.

KEY WORDS: Coca-Cola retailers, competition, price variation

I. INTRODUCTION

Retail markets have been analysed recently on articles in applied literature because of their excellent suitability for the investigation of spatial price competition. It is obvious there are usually many outlets in a region where competition is highly localized as retailers usually compete almost entirely with their closest rivals as suggested by most spatial competition models. The retail market is usually dominated by a few large local and integrated firms present in most local markets. In general, it is found that a large number of small outlets (usually called 'independent' or 'Unbranded' outlets, compete in a few (or one) local markets.

As Coca-Cola products are perfectly homogenous with respect to its chemical properties, outlets try to avoid perfect competition through product differentiation (supplying additional services like shops, attendant service, cooling technology etc.) and spatial differentiation [5] [23]. Unbranded outlets typically compete by charging the lowest price [13]. Competition and market efficiency keep pressure on prices to converge towards the lowest price levels. Competition in such retail market is highly localized, as consumers typically prefer to buy products at outlets in the vicinity of their residence/place of operations. Therefore, as in most spatial markets, sellers recognize only their nearest neighbours as relevant competitors [3]. Despite the many outlets in the sampled areas, each of these local markets can be characterized by oligopolistic interdependencies.

The Nigerian Bottling Company has reinforced the monitoring and benchmarking of price differences in the retail market but this has not yielded much difference due to facility differences and other reasons not associated with brand (level of sales, locations etc.). It is paramount to explore the reasons behind the remaining price

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differences in the retail market using regional price information as a yardstick. More so, the type and nature of Coca-Cola retail market need to be examined in order to envisage the reasons for difference in price of products. Therefore the main objective of the study is to examine the influence of price competition in the Coca-Cola retail market in Ibadan metropolis. The study specifically examined the presence of competition in the Coca-Cola retail market, the variations in the retail price of Coca-Cola products and the factors influencing the variations in the retail price of Coca-Cola soft drinks in Ibadan metropolis.

This paper is organized into four sections; section one is the introductory part of this paper, section two covers the theory and concept of the study, section three covers the methodology used for the study, section four gives the result and its interpretation and finally the last section bears the summary of the study.

II. THEORETICAL AND EMPIRICAL FRAMEWORK

CONCEPT OF COMPETITION

A competitive market is one in which a large number of producers compete with each other to satisfy the wants and needs of a large number of consumers. In a competitive market no single producer, or group of producers, and no single consumer, or group of consumers, can dictate how the market operates nor can they individually determine the price of goods and services, and how much will be exchanged. Competitive markets will form under certain conditions [9];

- i) When there is possibility of profits which provides an incentive for firms to enter the market. Basic economic theory states that profits are earned when firms gain revenue which exceeds the costs of production. The profit could be – normal or abnormal. When revenue exceeds costs abnormal profit is earned, and when revenue equals costs the firm makes normal profits.
- ii) if stocks of goods will diminish as the good is purchased. For example, the purchase of a bottle of Coca-Cola by one consumer means there is one less available for other consumers. This is referred to as the principle of diminishability. Eventually, stocks will diminish to zero and as this happens, price will be driven up. Higher prices create an incentive for the producer to increase production.
- iii) When competition exists to obtain the benefit of the good or service. For example, if a consumer is to be guaranteed a good seat at a music venue, the consumers need to book in advance, or get there early - there is clearly a need to be competitive to secure the benefit of the good. This is called the principle of rivalry, and is clearly closely related to the principle of diminishability.
- iv) If consumers can be excluded from gaining the benefit that comes from consumption. A storekeeper can stop consumers gaining the benefit of a product if they are unable or unwilling to pay. If consumers cannot be excluded they may become free-riders.
- v) If consumers can reject goods if they do not want or need them.
- vi) **If** It is also possible for the buyer to make a bid for a good or service, and for it to be accepted or rejected by the seller.
- vii) For markets to work effectively there can be no significant information failure affecting the decisions of consumers and producers. It is assumed that the consumer of a private good or service knows what they are getting - they are able to estimate accurately the net benefit they are likely to derive.
- viii) Consumers should have the right to own private property and protect it from theft or damage, or from other people's waste, and from the pollution of others. If property rights cannot be established, the good is not a pure private good.
- ix) **Incentives for entrepreneurs:** The combined effects of the above characteristics mean that markets will form because entrepreneurs will be willing to take risks associated with producing and supplying pure private goods. This is because consumers would be prepared to pay for the good, and producers can charge consumers at the point of consumption, from which they can earn revenue and make a profit.

When some of these conditions are absent, it is likely that market failure will exist. Meanwhile, the presence of the following conditions helps define the nature and degree of competition among firms operating in the same industry referred to as market structure.

FORMS OF MARKET STRUCTURE

According to Army Glenn [1], there are five forms of market structure and they are as follows.

Perfect Competition: A perfectly competitive market is one in which the number of buyers and sellers is very large, all engaged in buying and selling a standardized product without any unnatural precincts and possessing perfect knowledge of the market at a time. Perfect competition is a market structure characterized by a complete absence of rivalry. Individuals are price takers and there is freedom of entry into and exit from industry.”

Monopoly Market: Monopoly is the form of market organization in which there is a single firm selling a commodity for which there are no close substitutes. Entire control on the supply of the product is in the hands of monopolist. There are restrictions on the entry of the other firms in the area of monopoly product.

Duopoly: Duopoly is a special case of the theory of oligopoly in which there are only two sellers and they are absolutely independent and no conflicts arise amongst them. A variation in price and productivity of one will affect the other and hence the other bearing loss has to match up with the price of the competitor.

Oligopoly: Oligopoly is a market stipulation in which there are a few firms selling standardized or varied commodities. It is complex to point out the number of firms in competition among the few. With only a few concerns in the market, the action of one firm is tending to affect the others. An oligopoly industry produces either a standardized product or assorted products. . Each oligopolistic firm knows that changes in its price, advertising, product characteristics etc. may lead to counter-moves by competition. Advertisement outlay is more in the case of oligopolists and consumer services.

Monopolistic Competition: Monopolistic competition denotes to a market condition where there are many firms selling a varied product. “There is a competition which is keen, though not perfect, among many firms making very similar products.” No firm can have any perceptible influence on the price output policies of the other sellers nor can it be influenced much by their actions. Thus monopolistic competition denotes to competition among a large number of sellers producing close but not perfect substitutes for each other. It is characterized by a large number of sellers, product differentiation, and freedom of entry and exit of firms, independent behaviour, product groups and selling costs.

Monopolistic competition is a market structure quite similar to perfect competition in that vigorous price competition among a large number of firms and individuals is present. The major difference between these two market structures is that at least some degree of product differentiation is present in monopolistically competitive markets. As a result, firms have at least some discretion in setting prices. However, the presence of many close substitutes limits the price-setting ability of individual firms, and drives profits down to a normal rate of return in the long-run. As in the case of perfect competition, above-normal profits are only possible in the short-run before rivals are able to take effective counter measures. Examples of monopolistically competitive market structures include a broad range of industries producing clothing, consumer financial services, and professional services, restaurants, and so on [22].

NATURE OF COCA-COLA RETAIL MARKET: this market can be likened to the food services industry which consists of numerous buyers and sellers and can be expected to fit the description of a monopolistically competitive industry in which firms assume that they have a negligible impact on market outcomes and do not anticipate rivals’ reactions to their actions. Monopolistically competitive industries are made up of a large number of firms each small relative to the size of the total market. Thus, no one firm can affect market price by virtue of its size alone. But firms differentiate their products, and by so doing gain some control over price. The firm follows monopolistic rule of maximizing profit and sets its price using its demand curve to ensure that consumers will buy the amount produced. The Coca-Cola retail market sell homogeneous product, however differentiated their product in terms of technology used in cooling, packaging and asset used.

Factors Influencing Price Variation: Retailers compete on many planes for the loyalty of the consumer. Sales, specials and lowest prices across stores are common marketing tools used by all retailers, each also strives for a non-price point of difference based on a combination of service, quality goods, convenience range and so on [6].

The consumer ultimately makes the shopping decision on these variables. It is based on these that the price of product varies by some degree, manifested both spatially and temporarily[16]. However there is no single factor responsible for the price differences of a commodity. A number of factors with different effects from place to place and product to product seem to be behind price differences. These potential factors can be divided into three groups: Natural factors, structural factors and market conditions[14].

- a) Natural causes: Natural causes behind price differences are factors like local preferences, consumer search costs and transport costs. They are not the result of differences in regulation, market structure nor structural differences. Local preferences and culture seem to play an important role in explaining price differences for some products. For instance, sales per retailer in city are greater than the less developed. Which implies a higher price in the city? Local preferences are also reflected by differences in the presentation of the same product of the same brand in different national markets. Differences in size, weight, volume and/or units per package are found across countries. Therefore, even though the prices compared are unit values per litre, kilo etc., the size of the product compared might vary across countries and since larger representations often have a lower unit value this affects the price level in the countries. Prices can differ between regions due to transport costs. Price differences between two regions will have to exceed the transport costs between the two regions before arbitrage will take place and this can create price differences between two geographical locations. Transport costs can also directly affect the price of some commodities.
- b) Structural causes: Structural causes include VAT and excise taxes, income differences, regulation on shop opening hours, regulation on land use and shop sizes, labour regulation, advertising rules and other types of regulation affecting the cost of selling goods. Retail structures vary significantly across cities and this seems to add to price differences. For instance, larger outlets can often offer economies of scale which, if passed on to consumers, can lead to lower prices. Discounters, which are shops with a business model based on low-prices, can increase competition in the retail sector, which puts a downward pressure on prices in other competing outlets.
- c) Market conditions: Market conditions relate to factors that might allow retailers, wholesalers and producers to deviate from the price you would expect to find in a perfectly competitive market, where prices would just differ due to the natural and structural reasons described above. The concentration in the retail sector varies across countries. The market share of producers also varies significantly across countries and from product group to product group. A high concentration in an industry can facilitate collusion and lead to higher prices. It should be noted however that the relationship between market shares of manufactures and retailers and price is by no means straight forward. The behaviour of manufacturers, wholesalers and retailers matters for the final price of a product. The final price reflects a large extent the bargaining power and skills of the market players. Larger retailers can also have lower costs that benefit consumers.

III. LITERATURE REVIEW:

Important dimensions of retail competition were identified by Fox and Sethuraman[11], they include price, variety, store type and location). The most studied one is price competition. Most literatures on retail food prices and competition focus mostly on whether an increased competition, measured by the concentration or new entries, in a geographically defined area has any disciplinary effect on prices or not. The dispersion of food prices was better explained by search costs (such as low budget shares and low price) and demographic variables (such as a high proportion of families with children and high income). In addition, individual store characteristics proved very important for an understanding of the spatial boundaries of local market. Fik, spatially modelled price competition as price-reaction functions in the metropolitan area of Tucson in the U.S.[10]. He then showed, using individual store prices together with the distance to the nearest competitor, that the intensity of price reaction is a decreasing function of distance. In addition, Zhu and Singh , among others, stressed the importance of store characteristics for understanding the spatial competition [25]. They found, that the Wal-Mart supercentres were the only ones that competed beyond 15 kilometres. Woo et al , found that the entry effect of Wal-Mart differed across formats[24], and the results of Cleeren et al also underscored the

importance of formats since they found that intra-format competition was significantly stronger than inter-format competition among supermarkets[4]. The findings in Gonzales-Benito et al strengthen the importance of store formats when it comes to understanding the spatial competition[12]. They found that the revenues of a hard discounter dropped by 41 per cent when it was located 300 instead of 500 meters from the closest competitor but only 5 and 11 per cent if the competitor was a supermarket and a supercentre, respectively.

Joakim G and Christian J, carried out a study on the variation in food prices across Swedish food-retailer market[15]. The results support the notion that the larger size of a store substantially lowers prices. They further states that prices are positively associated with population and wealth, although their economic importance is small. They concluded that the price competition is substantial among neighbouring stores within a kilometre and the competition among Swedish food stores is indeed local. Claiming that an entry of a food store has a major impact on the consumption patterns. Similarly, Sikhitha, K.M, account for influence of price variation in real estate data using a spatial econometric hedonic property value model [21]. Found that, residential property prices tend to move together within neighbourhoods such that a given residential property's sale price is dependent of the sale price of neighbouring residential units. He concluded that location is the most important determinants of a residential property's price. , Loreto L et al, empirically analysed the relationship between market structure and consumer prices in the supermarket industry in Chile using panel data[7]. He found that the more concentrated the industry is in a city, the higher the prices and the participation of major national chains in cities tends to lower prices. He further states that, the dominant local chain was found to behave differently depending on whether or not one of the national chains was present in the city. He concluded that prices rise when a national chain acquires another chain and both were previously in a city (in merge) while if only one of the two was present (out merge), prices fall.

IV. MATERIALS AND METHODS

Data Collection:- The study was carried out in some selected local government areas in Ibadan. Ibadan is considered an ideal place for this study, because it is a cosmopolitan city well industrialized and a state capital with rural and non-rural areas. Ibadan is at longitude. 7°23'47"N, 3°55'0"E and latitude. 3°35' and 4°10'N, was founded in 1829, initially occupied by immigrants. It is now the largest indigenous city in tropical Africa and is the capital of Oyo state. It covers an area of about 1,189.2 sq m (3,080 km²). It is located in south-western Nigeria, 78 miles inland from Lagos and is a prominent transit point between the coastal region and the areas to the north. Its population is 2,550,593 according to 2006 census results (NPC, 2006), including 11 local government areas with 5 in the inner areas and 6 in the outer areas. The principal inhabitants of the city are the Yoruba people. The Local Government Areas selected for the study include Akinyele Local Government Area, Egbeda Local Government Area and Oluyole Local Government Area.

The data used for this study were collected using well-structured questionnaire. A random sampling technique was used in this study to select the respondents. The local Government Areas were selected randomly from among the 11 LGAs. From each Local Government Areas, Coca-Cola retailers were randomly selected proportionate to size of resident in each LGAs. A total of one hundred and ten retailers were interviewed in the study.

Analytical tools used for data analysis: The economic tools employed in this survey include; Descriptive statistics such as mean and standard deviation were used to analysed the socio-economic characteristics of the respondents. Ordinary least square methods were used for econometric analysis in computing the nature of market and factors influencing price variation among retailers.

Modelling Nature of competition: A log-linear regression model following the Rosse and Panzar reduced-form revenue model was adopted [20]. The Rosse–Panzar approach works well with firm-specific data on revenues and factor prices, and does not require information about equilibrium output prices and quantities for the firm and/or industry. In addition, the Rosse–Panzar approach is robust in small samples,

Rosse and Panzar and Panzar and Rosse, assume that firms can enter or leave any market rapidly, without losing their capital, and that potential competitors operate on the same cost functions as established firms[20][18][19].

The test for the nature of competitive conditions is based on the properties of a reduced form log-linear revenue equation as follows:

$$\ln R_{it} = \alpha_0 + \sum_{j=1}^J \alpha_j \ln w_{jit} + \sum_{k=1}^K \beta_k \ln X_{kit} + \epsilon_{it}, \dots \dots (1)$$

Where R represents the revenue of the retailer i at time t.

- w_j are the input prices;
- X are individual retail -specific variables that affect the individual’s revenue and Cost functions;
- ε is a stochastic disturbance term.

The functional form is written as

$$\ln Rev_i = \alpha_0 + \alpha_1 \ln PL_i + \alpha_2 \ln PK_i + \alpha_3 \ln PV_i + \beta_1 \ln ASSET_i + \epsilon_i \dots \dots \dots (2)$$

Where REV = ratio of retailer’s revenue to total assets; PL = personnel expenses to employees (unit price of labour); PK = capital expenses to fixed assets (unit price of capital); pv = expense/cost of other variable inputs. The i-subscript denotes retailer (i = 1, . . . ,N).

The model assumes a one-way error component as described by

$$\epsilon_{it} = \mu_i + v_{it}$$

The Rosse–Panzar H-statistic is calculated from the reduced form revenue equation. H is the sum of elasticities of total revenue with respect to each of the individual retailer input prices in equation 1

$$H = \sum_{j=1}^J \alpha_j \dots \dots \dots (3)$$

The H statistic is given by H = α₁ + α₂ + α₃

When the H-statistic is negative (H < 0) the structure of the market is monopolistic. In such cases, an increase in input prices will increase marginal costs, reduce equilibrium output and reduce total revenue. An H-statistic of one (H = 1) is associated with perfect competition, as any increase in input prices increases both marginal and average costs. Finally, 0 < H < 1, is associated with monopolistic competition

Modelling Price Competition: Analysing price competition one approach that is often used is based on the reduced form of the competitive pressure. The reason for using a reduced form is as result of the number of possible relationships between prices and market structures, which depends on the strategic variable used by firms (price versus quantity) as well as the possibility of collusion[2]. This approach may take the following form:

$$p_k = X_k \beta + \epsilon_k,$$

The model used for this study is developed by Pennerstorfer , it assume that a firm’s reaction depends on how close two competitors are[7a][7]. It assumes that probability that a price fall in one store will have a smaller impact on the price decision of a store a few distance away compared to a store some distance farther away. Hence the impact of competitors’ price and characteristics on the price of firm l depends on the spatial distribution of competitors around it. This is expressed in the following specification used in our analysis:

$$P = X\beta + WZ \delta + WP \gamma + e,$$

- Where X is a matrix with the cost and demand factors associated with the observed firm,
- Z is a matrix of characteristics that influence the pricing decision of our observed firm through its neighbours,
- p is the price vector, and
- β, δ and γ are parameters to be estimated.

The variable of interest is the price level of a store. A store level price index as in Asplund and Friberg is calculated by dividing the price of good i in store k with the average price of good i (all coca-cola products)[2]. The price index of store k is then defined as the mean price index of all goods

$$PI_k = \frac{1}{n_I} \sum_i (P_{ik} / \frac{1}{n_K} \sum_k P_{ik})$$

Where PI_k is the price of good i in store k , n_K is the number of stores, and n_I is the number of goods.

V. RESULTS

The result on the descriptive statistics of the respondents in the study area using their means and standard deviation is shown in table 1.

Years of business operation: the minimum years of operating as a coca cola retailer was 2 years and the maximum was 28 years. The means years was 9 years for all respondents. The difference between the youngest operating store and longest operating store to their means was approximately 5 years.

Rate of Discount: the maximum amount of of discount given by retailer was 5% discount while some operate at zero discount rate.

Expenses: Expenses incurred in the business varies from outlets to outlets. Cost of asset difference between cheapest and most expensive store was ₦467,541. Variable cost expense between the cheapest and most expensive store was ₦32,899.94 and the difference on yearly expenses on fixed asset between the most expensive and cheap store is ₦23,093.50.

Price Index: The maximum store price index was 2.5019 while the minimum was 0.6123. the difference between the cheapest and most expensive store price index in the study area was about 0.3009 which about 30% difference.

Distance to nearest neighbour: the maximum distance to nearest neighbour was 1000m while the shortest distance was 100cm with a deviation from their mean about 192m

Table 1: Descriptive Statistics

Definition	Minimum	Maximum	Mean	Std. Dev
Age	20	70	37.3091	9.7051
Years of education	0	18	11.273	5.7053
Years of business operation	2	28	9.318	4.8564
Rate of discount	0	5	0.4273	1.0267
Sales per year(₦)	52,000	1560,000	2,842,580	34,911,976,632
Cost of Asset	1300	3,790,000	162,770	467,541
variable cost expenses per year	1,533.33	207,000	29,188	32,899.940

Yearly expenses on fixed asset	800	150,000	19,703	23,093.496
No. of crates sold Per year	52	11,440	992.16	1,818.076
Number of labour	1	8	1.236	2,430
Average salary per labour/yr	60,000	240,000	45.24	63057.60
Number of competitors	1	50	4.7712	5.45
Price Index	0.6123	2.5019	1.0000	0.3009
No. of Competitors	0	50	4.7727	5.4548
Size of Retail Outlet	8m ²	2200m ²	76.7180	328.9650
Distance to nearest Neigh.	100cm	1000m	98.0075m	192.0162
Average income per year (₦)	96000	1680000	400800	324504

Source: Authors Computation, 2013.



Fig.1: A graph showing store level price of Coca-Cola retailers

Nature of Market competition: The competitive nature of coca-cola retailers was analyzed using Ordinary Least Square Method (as in table 2). The result shows an adjusted R² of 0.8799 and F-Statistics of 2000.58 significant at 1%. The H- Statistic of the analysis was -0.1058. The coefficient of expenses on labour was 0.6899, capital expense coefficient was -0.7577, which were positively and negatively significant at 1% respectively.

Table 2: Test of Competitive Conditions dependent variable lnRev

Variable	Estimate	t-statistics
Ln Pl	0.6899*** (0.0170)	4.05
lnPk	-0.0390 (0.0793)	-0.49

lnPv	0.0758 (0.0535)	-1.42
lnAsset	-0.7577*** (0.0422)	-17.94
Constant	11.3412*** (0.5360)	21.16
Adjusted R ²	0.8799	
F-Statistics (4,105)	200.58***	
H – Statistics	-0.1058	

Price Competition: The result on the analysis of price competition in the study was carried using Ordinary Least Square Method (see table 3) The key variable of interest was store price level index. The result showed an adjusted R² of 0.7253 and an F-Statistics of about 29.78 significant at 1%. The coefficient estimates of shop size (0.00054) and annual income (2.45e-07), were positive and statistically significant at 1%. Yearly sales coefficient was 1.82e-08 and positively significant at 5%. The coefficient of giving discount was -0.2629, distance to nearest neighbour was -0.0025 and the coefficient of population density of the area was -0.0767, all were negative and statistically significant at 5%.

Table 3: OLS Regression result on Price competition

Variable	Estimate	t-Statistic
Size of shop	0.00054 *** (0.0001)	4.36
Yearly income	2.45e-07*** (6.47e-08)	3.78
Discount given	-0.2629** (0.1118)	-2.35
Discount rate	0.0151 (0.0387)	0.39
Yearly sales	1.82e-08** (9.14e-09)	1.99
Number of competitors	-0.0031 (0.0030)	-1.02
Distance to nearest Neigh	-0.0025** (0.0001)	-2.19
Population density	-0.0767** (0.0388)	-1.98
Cost of labour	-2.45e-06 (7.31e-06)	-0.33
Number of labour	0.0232 (0.0253)	0.92
Constant	0.9269 *** (0.00417)	22.21
Adjusted R ²	0.7253	
OBS	110	
F(10, 99)	29.78***	

VI. DISCUSSIONS

Descriptive Characteristics: In this study, six Coca-Cola products obtainable in retail outlets were used to estimate the store price level (price index). In describing the retailers of the commodity market, it was found that the average operating years were 9 and the years difference from the operating years means between the longest served and youngest in the business is approximately 5 years. Retailers in the study area operate with little or no discount to their customers. The maximum amount of discount given to customers is at 5% of the sales price depending on the volume of purchases of product(s). In the course of their sales cost expenses were incurred ranging from assets cost, labour cost, maintenance cost of assets and other recurrent costs. On the other hand, the store prices were about 30 percent higher than the most expensive stores compared to the cheapest stores in the metropolis (see table 1). When it comes to the spatial environment of the stores in the metropolis, the distance to the nearest neighbor is rather too short and the mean distance is around 98m while the farthest is about 1km. This implies that the larger store often faces closer competition formed by smaller stores. In the real sense the distance to closest neighbour is short in the retail market.

Nature Of Market Competition: The nature of market competition among retailers of Coca-Cola products were analyzed based on the relationships between the annual revenue generated by individual retailers and their various cases of input prices. The effect was examined with Ordinary Least Square Regression following Rosse and Panzar model, [20] using the logarithm of individual retailer's annual revenue as a fraction of total asset ($\ln Rev$) (see Table 2). The result which showed an adjusted R^2 of 87.99 percent explains that about 87 percent of the explanatory variables is responsible for the variations in the dependent variable (i.e. revenue of individual retailers). Result showed that unit labour cost and cost on asset have significant effect on revenue generation of the retailers. Expenses on fixed assets and other variable cost have no significant effect on retailers revenue. The result further depicts that the positive effect of unit cost of labour supports higher compensating return in the market, this implies that a 10% increase in labour cost generates about 7% increase in revenue. Cost of assets has negative effect on retailers returns, suggesting that a 10% increase in the cost of assets reduces revenue generated on the business by 8%. A significant test on the sum of the input price elasticity shows that the 'H' statistics is positive (0.1058) which indicates that the Coca-Cola retail market is a monopolistic competitive market in the long run in the metropolis. In such case, an increase in input prices of assets and its expenses will increase marginal costs and reduce total revenue.

Price Competiton: Table 3 shows the result on the analysis of the relationship between price variation among Coca-Cola retailers and some influencing factors ranging from demand and supply situation of the market, market structure and characteristics of observed retail market in the study. The relationships were examined using Ordinary Least Square regression. The variable of interest is price level of a store, which was constructed as store price index as in Asplund and Friberg [2]. This key variable was regressed against other influencing factors as shown in the table. The result which showed an adjusted R^2 of 72.53 percent explains that about 73 percent of the explanatory variables is responsible for the variations in the dependent variable (store price of products). The result further depicts that size of shop or size of retail outlet, yearly income, yearly sales, distance to nearest neighbour, service of discount being observed and how populated an area is have significant effect in variation of prices of Coca-Cola products among retail outlets in the study area. However, size of shops, yearly income and sales positively influence price variation, which further depicts that the larger the size of retail outlet, the higher the price cost of sale vis- a- vis the retail price at which a product is sold to consumers (against the findings of Joakim G and Christian J, [15]). In the same vein, the higher the yearly sales and income the higher the retail price of products sold. On the other hand, the advent of discount being given to by retailers, distance to nearest neighbour and population density of an area have negative influence on price variation of retailers. This implies that retail outlets that gives discount have lower price variation compared to outlets which do not observe discount in their sales and more so tend to sell at lower prices. On the hand, the more the distance to the nearest retail outlet the wider the price variation (higher price of product) as consumers are subjected to little or no alternative (supported by Fik, T. J. ([10] findings). The higher the population of consumers in the area, the lower the price of product (narrower the variation in price of Coca-Cola products) among retailers in the area as consumers are bound to influence the price of products sold (supported by the findings of Joakim G and Christain J [15]).

VII. CONCLUSION

The findings from this study reveals that Coca-Cola retail market in Ibadan metropolis is a monopolistic competitive market as such, an increase in input prices of assets and expense on assets will increase marginal costs and reduce total revenue. Studies have it that such market is characterized by many sellers and consumers. Also that the Retailers have no total control over price and consumers perceive no difference among competitors' products as they attribute differences in price to be a function of input cost structure aided at differentiating products[8].

The market displayed variation in retail Coca-Cola products price in the metropolis. Prices were about 30 percent higher than the most expensive stores compared to the cheapest stores in the metropolis. These variations were attributed to some factors such as municipality characteristics, market structure and store characteristics. Findings depict that increase in yearly income and annual sales increases price of products and the larger the size of outlet the higher the price of products. On the other hand, lower price of products are obtained from smaller size of retail outlets, where annual sales and annual income are relatively lower. More so, the distance to nearest neighbour and population density of an area negatively influence the price variation of Coca-Cola products. This implies that the more the distance to nearest neighbour, the higher the price variation of products, also the higher the population the lower the price variation.

It is recommended that more entries into the retail market should be encouraged in the marketing chain of Coca-Cola products as it reduces the monopolistic power of retailers to influence price. More so, Nigerian bottling company should go beyond provision of coolers and refrigerators to provisions of awareness shops where prices are controlled in specific locations in the Ibadan metropolis. It is imperative that sales promotion gimmick that encourages more entries into the business should be introduced periodically to encourage more retailers.

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APPENDIX



Fig.2: Chart showing the category of store price index

Table 3: Distribution of Retailers According to their Socio-Economic Characteristics

Variable	Frequency	Percentage
Sex		
Male	37	34
Female	73	66
Total	110	100

Age(in years)		
20-29	27	25
30-39	38	34
40-49	32	29
≥50	13	12
Total	110	100
Educational Level		
No formal education	8	7
Primary Education	12	11
Secondary Education	46	42
Tertiary Education	40	36
Vocational Education	4	4
Total	110	100
Average Income per year (₹)		
≤240,000	40	36
2410,000-480,000	51	46
481,000-720,000	13	12
≥721,000	6	6
Total	110	100
Years of operation		
1-5	27	25
6-10	55	50
11-15	14	13
16-20	12	11
>20	2	2
Total	110	100
Size of outlet(m²)		
<30	103	94
30-50	2	2
>50	4	4
Total	110	100

Source: Authors' Computation, 2013.