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Evaluating the Use of Pricing Model to Win Customers in Manufacturing Industries: Evidence from Nigerian Bottling Companies

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Abstract
Pricing model is one of the major marketing strategies to win customers' patronage in manufacturing companies. Manufacturers/entrepreneurs often used pricing model to penetrate market with both new and existing products. This study aims to evaluate the use of pricing model in winning customers confidence in patronizing goods/products manufactured by enterprising companies, gathering evidences from Nigerian Bottling Companies. The study intends to investigate the relationship between dynamic pricing model, cost-oriented pricing model, penetration pricing model and customers' patronage. The study is premised on quantitative analysis where Statistical Package for Social Sciences (SPSS) is used to analyze data elicited from respondents. The findings of the study revealed that there exist a significant relationship between the three independent and dependent variables. The study therefore concludes that manufacturing companies should intensify efforts to adopt the use of different pricing models to win more customers for their products. Furthermore, the researchers recommend that pricing models should be part of strategic policy of manufacturing companies in order to attract more customers/consumers for their products. This will definitely bring industrial growth and efficiency in the manufacturing companies.

Keywords: Pricing Models, Winning Customers, Manufacturing Companies.
JEL Classification: E22

1. Introduction

Price control, simply put can be defined as restrictions on prices of goods and services in a market. There used to be two primary forms of price control, namely price ceiling and price floor. Price ceiling is seen as the maximum price charged due to the curve of demand and supply, while price floor is the minimum charged in the market. Price control is directly proportionate to company revenue because it is a significant determinant to survival of the company in so many ways. To fix price of goods and services, there ought to be good price mechanism for customers/consumers to purchase goods and services. Price of goods and services is a major parameter that affects company revenue significantly. Therefore, companies must not make mistake in fixing the price of every product in the company. In setting the price, companies must take into cognizance the manufacturing cost, the market place, competition, market condition, brand and quality of products. The concept of pricing model is used by manufacturers/entrepreneurs to determine the sales price of goods produced by manufacturing companies. It is referred to price tag placed as sales price on goods to be sold to consumers. To a layman, it is the amount of money paid on goods and/or services that consumers intend to buy.

A good pricing strategy is a strategy that strikes balance between the price floor (the price below which the organization ends up in losses) and the price ceiling (price at which the organization experiences a non-demand situation). Rick (2009) stated that pricing models refer to methods companies use to fix the sale price of their products and/or services. Companies often base their sales price on production, labor and advertising expenses, and equally add a certain percentage as their profit on products. Therefore, companies without good pricing model techniques may be losing its potential customers/consumers in the market.

Price control uses to pose a serious challenge to companies, especially when the equilibrium is to be reached between the seller (company) and the buyer (customers/consumers). There is need for industries cum manufacturing companies to often determine their price control based on the curve of supply and demand in order to arrive at the equilibrium of price control.

1.1 Statement of the Problem

Pricing model is generally a problem in manufacturing industries because most of them are fixing sales price arbitrarily. It is more problematic when manufacturing companies want to set price for the first time. This often happens when companies bid for new contract. Pricing is equally a problem when market variables are demanding for change in sales price, most especially when the price are tight to market demand, cost, customers/consumers and competitors prices. Re-pricing may be triggered by inflation as well. Pricing can also be a problem when customers initiate a price change, manufacturing companies may have to decide whether to change its own prices and if so by how much. This is because an increase/decrease in competitor's price will automatically affect the price of other companies who dealing with similar goods.

Price control is often not determined by the curve of supply and demand in the market, which is what is responsible for failure of many price strategies on goods and services. The economic force of demand and supply need to be taken into consideration before adopting price strategy for goods and services. Most often, prices of goods and services are being arbitrarily, which may not be economically right for price control in the market. Therefore, manufacturers should always use force of supply and demand to fix price of goods and services in the market.

Besides, many researchers are conducting investigations on marketing strategies without considering pricing model as one of the major marketing strategy to penetrate the market. Focusing on marketing strategies without considering pricing models is bringing up research issues on price control on goods and services. The research gap created by previous studies on marketing strategies with little or no emphasize on price control informed the decision on this study. The researcher therefore carefully chooses to evaluate the pricing models to win customers in manufacturing companies.

1.2 Research Questions

Research questions are clearly set out with respect to the relationship between identified independent variables, that is, dynamic pricing model, cost-oriented pricing model, binomial option pricing model and winning customers/consumers to patronize companies' products in Nigeria. The research questions therefore are stated below as:

1. To what extent does dynamic pricing model help in winning customers/consumers in patronizing manufacturing companies' products?
2. To what extent does cost-oriented pricing model help in winning customers/consumers in patronizing manufacturing companies' products?
3. To what extent does penetration pricing model help in winning customers/consumers in patronizing manufacturing companies' products?

1.3 Research Objectives

In order to answer the research questions correctly, the following research objectives are set to be achieved in the study. Thus:

1. To examine the effectiveness of dynamic pricing model in winning customers/consumers in patronizing manufacturing companies products.

2. To assess the effectiveness of the cost-oriented pricing model in winning customers in patronizing manufacturing companies products.

3. To evaluate the effectiveness of penetration pricing model in winning customers in patronizing manufacturing companies products.

1.4 Research Hypothesis

Three hypotheses are developed for the study. Thus:

H_1: Dynamic pricing model is effective in winning customers in manufacturing industry.

H_2: Cost-oriented pricing model is effective in winning customers in manufacturing industry.

H_3: Penetration pricing model is effective in winning customers in manufacturing industry.

1.5 Conceptual Research Model

Independent Variables

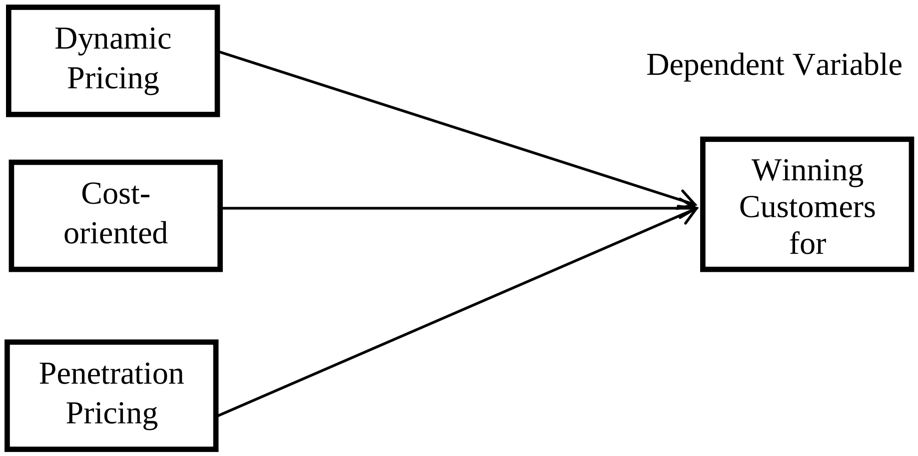

Figure 1: Conceptual Research Model

2. Review of Related Literature

2.1 Using Marketing-Mix Strategy to Win Customers

Strategy for winning customers in business organizations evolves from marketing mix. Marketing mix is not a scientific theory, but merely a conceptual framework that identifies the principal decision to woo customers/consumers into buying goods and services in the market. The tools can be used to develop both long-term strategies and short-term tactical programmes for winning customers (Palmer, 2004). The marketing mix strategy has dominated marketing thought, research and practice. Marketing mix has been extremely influential in informing the development of both marketing theory and practice (Möller, 2006).

Marketing mix makes marketing strategies easy to handle, allows the separation of marketing from other activities of the firm and the delegation of marketing tasks to specialists. The components of the marketing mix can change a firm's competitive position (Grönroos, 1994). The marketing mix strategy has two important benefits. First, it is a tool used to realize the manager's job in marketing promotion. The second benefit is that it helps to reveal other dimensions of the marketing manager's job. Managers have to allocate available resources among various demands, and the marketing manager will in turn allocate these available resources among the various competitive devices of the marketing mix. In doing so, it helps to instill the marketing philosophy in business organization (Low and Tan, 1995).

Frey (1961) suggested that marketing variables should be divided into two parts, viz-a-viz: the offering (product, packaging, brand, price and service) and the methods and tools (distribution channels, personal selling, advertising, sales promotion and publicity). On the other hand, Lazer and Kelly (1962) posited that three elements of marketing mix, namely, the goods and services mix, the distribution mix and the communication mix. McCarthy (1964) refined Borden's (1965) idea further by defining the marketing mix as a combination of all of the factors at a marketing manger's command to satisfy the target market. The scholar regrouped Borden's 12 elements to four elements or 4Ps, namely product, price, promotion and place at a marketing manger's command to satisfy the target market.

The product must be available in the right place, at the right time and in the right quantity, while keeping storage, inventory and distribution costs to an acceptable level. The place where customers buy a product and the means of distributing the products to the place, and it must be appropriate and convenient for the customer/consumers. Place also means ways of displaying the products to customer groups, this could be referred to as a shop window. On the other hand, Cole (1996) defined promotional mix as the means use in bringing customers from a state of relative unawareness to a state of actively adopting the product. It is a medium of communicating with individuals, groups and/or organizations to directly or indirectly facilitate exchange of informing and persuading one or more audience to accept business organization's products. Ross (2001) opined that promotional mix is the total marketing communication strategy of a particular product. Adebisi (2006) defined promotional mix as any marketing effort whose function is to inform or persuade potential consumers about the merit a product possesses for the purpose of inducing a consumer to either start buying or continue to purchase the firm's product.

On another clime, there is no point in developing a product or service that no one wants to buy, yet many businesses decide what to offer first, and then hope to find a market for it afterwards. Successful companies find out what customers need or want and then develop the right product with the right level of quality to meet their expectations, both now and in the future (Volker, 2015). Product refers to the goods and services offered by the organization. So, product can be described as a bundle of benefits which a marketer offers to the consumer for a price. Besides, pricing is the element of the marketing mix that generates revenue in manufacturing companies (Volker, 2015). Price is the consideration in terms of money paid by consumers for the bundle of benefits he/she derives by using the product/ service (Baker 1995). In simple terms, it is the exchange value of goods and services in terms of money. Pricing (determination of price to be charged) is another important element of marketing mix and it plays a crucial role in the success of a product in the market. If the price fixed is high, it is likely to have an adverse effect on the sales volume, and if it is low, it will adversely affect the profitability. Hence, it has to be fixed after taking various aspects into consideration. After product, pricing plays a key role in the marketing mix. The reason for this importance is that where the rest of the elements of the marketing mix are cost generators, price is a source of income and profits (Alexander, 2010).

2.2 Concept of Dynamic Pricing Model

Dynamic pricing refers to real-time pricing. It is a pricing strategy in which businesses set flexible prices for products or services based on current market demands (Tucker, 2013). Businesses do change sales price based market algorithms that often consider competitor pricing, supply and demand, and other external factors in the market. Dynamic pricing is a common practice in several industries such as hospitality, travel, entertainment, and retail. Each industry takes a slightly different approach to re-pricing based on its needs and the demand for the product. Because of dynamism of dynamic pricing model, the sales price of products could be changed in the market based on number of market variables. Market nowadays, is more complex and competitive to the extent that customers have gained more power to determine the price of products when other economic variables are put into consideration. There is a strong paradigm shift towards using dynamic pricing model in fixing the sales price of goods and services in the market.

2.3 Concept of Cost-Oriented Pricing Model

In practice, there are many ways of arriving at the sales price of goods and services, but economists postulated the basic two methods are cost-oriented and demand-oriented price determination (Markin, 1994). Costs provide a floor/limit where prices can go on one hand, and it is logical that prices should be built on precise cost analysis (Balshlow, 1999). Cost-oriented pricing is not as simple or full-proof as it seems at first glance (Rom, 1994). The analytical tool for using cost-oriented pricing model and management judgment is required to arrive at accurate sales price of goods and services.

Cost-oriented pricing model always go with cost-plus approach, which entails that total cost includes a variety of costs and output changes (Lnitt, 1994). Any other method using costs as basis for determining sales price must make allowances for these variations. Cost-oriented pricing model is premised on six types of costs, namely, fixed cost, total fixed cost, variable cost, total variable cost, average cost and total cost.

2.4 Concept of Penetration Pricing Model

Penetration pricing is a model employed by manufacturing companies to structure the pricing of its products in order to win more customers in the market. The model works well with products that are consumed quickly, like groceries, but not so well with products that are not consumed quickly, like cars. Staton (1991) opined that in penetration pricing, a lower initial price is set to reach the market immediately. The scholar further stated that penetration pricing model is likely to be more satisfactory than skimming when the following variables exist. Thus, the quality sold is highly sensitive to price, that is the product has high elastic demand, substantial reduction in unit production and marketing cost pass through large-scale operations and when the product is expected to face a very strong competition soon after it is introduced to the market.

Kotler (1999) identified two (2) penetration pricing model, that is, rapid penetration pricing model and slow penetration pricing model. A rapid penetration pricing model consists of launching the product at a low price and spending heavily on promotion. This pricing model promises to bring about faster market penetration and the largest market share. The scholar further posited that this could be achieved when the market is large, the market is unaware of the product, and most buyers are price sensitive. Lastly, the slow penetration pricing model is when the marketing strategy backfires, and there is price war in the market where other competitors lower their prices. This may force the manufacturing companies using penetration pricing model to lower its price too.

2.5 Conceptual Literature Review

Bulow and Klemperer (2012) used a model to test the consumer gains from price controls through formulas that measure consumer surplus. The results indicate that it is not likely that consumer surplus will enhance price control. Hargreaves (1947) equally argues that the effects of price controls are influenced by arrays of goods. The scholar later suggested that efficiency of price control on raw materials and final products are not the same. Gorter and Hilderbrand (1951) posited that price control is often suppressed by inflation. The scholar went further to state that price stability is directly proportionate to consumer cash balance. Thus, the continued increase in the consumer cash balance is constrained by the limited supply, which implies grey economy, increase in inflation, and which may eventually lead to price control system collapses.

Danzen, Patricia, Richard and Liang (2004) analyzed the price control on pharmaceutical drugs across 25b countries as a contributor to delays in the launch of new drugs. The delay is perceived to cause significant losses to pharmaceutical companies and may affect returns on investment. The study concludes that the differences across countries reflect differences in the range of products and dosage forms and their relative weights in utilization and price differences for specific products. The study further states that price regulation negatively affects the timing and occurrence of lunch of drugs. Hogendom (2003) tactically demonstrates how companies, using electric companies often raise prices of goods and services, and divide the resulting profits. The study equally shows that price control regulation does not prevent collusion but may even contribute to monopoly behavior.

3. Research Methodology

3.1 Research Design

Research design is a blueprint that guides the researcher(s) to investigate and analyze the elicited data from respondents (Salihu, 2011). According to Onwumere (2005), research design is a format that researcher employs in order to systematically apply the scientific method in the investigation of problem. It provides the glue that holds the research project together. The research design in this study is premised on survey design where structured closed ended questionnaire is used to elicit information from respondents. The study area is Nigerian bottling company in Minna. Copies of questionnaire are distributed directly by the researchers in order to a good return rate.

3.2 Population and Sample of the Study

A population is defined as the totality of all possible observations or outcomes. According to Rafiu (2007), population is a set of existing units (people, objects, events or the like) that the researcher wishes to study. Polit and Hungler (1999) opine that population is an aggregate or totality of all the objects, subjects or members that conform to a set of specification. The study population comprises of forty (40) major distributors in Minna metropolis operating with Coca Cola Bottling Company, Minna. A sample on the other hand is defined as a limited number of elements/subjects selected from population, using fair representation. The whole population in the study is used because the researcher found it convenient to administer questionnaire on all the respondents.

3.3 Instrument for Data Collection

The instrument for data collection is structured questionnaire. The questionnaire is made up of five (5) sections (A-E). Section A seeks information on demographical data of the respondents. Section B seeks information on wining customers in manufacturing industries. Section C seeks information on dynamic pricing model. Section D seeks information on cost-oriented pricing model. Section E seeks information on penetration pricing model. All items from section B to section E are based on a five point Likert Scale Rating of Strongly Agree (SA), Agree (A), Undecided (UN), Disagree (D) and Strongly Disagree (SD).

3.4 Method of Data Analysis

Data collected is analyzed based on the responses obtained from respondents using Statistical Package of Social Science (SPSS). The statistical tool for analysis is multiple regression analysis. This is used to test the hypothesis formulated by the researchers. The model for the study is given below as:

$$Y = \alpha + b_1 X_1 + b_2 X_2 + b_3 X_3$$

Where:
Y is the value of the Dependent variable (Y),
α (Alpha) is the Constant or intercept
b_1 is the Slope (Beta coefficient) for X_1
X_1 First independent variable that is explaining the variance in Y
b_2 is the Slope (Beta coefficient) for X_2
X_2 Second independent variable that is explaining the variance in Y
b_3 is the Slope (Beta coefficient) for X_3
X_3 Third independent variable that is explaining the variance in Y

3.5 Data Analysis and Discussion of Findings

Table 1 below shows the descriptive statistics of the respondents where minimum, maximum mean and standard deviation of the respondents are given. Thus:

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IPS	40	1.00	3.00	2.0650	.77179
DPM	40	1.00	3.00	2.3050	.72605
COP	40	1.00	3.20	2.2150	.72944
PPM	40	1.00	3.00	2.1800	.74531
N (listwise)	40				

Source: Researcher Survey

Multiple regression analysis is obtained as follow: Y= -0.619 + 0.217 + 0.732 + -0.052. The graph plot for the model is given as:

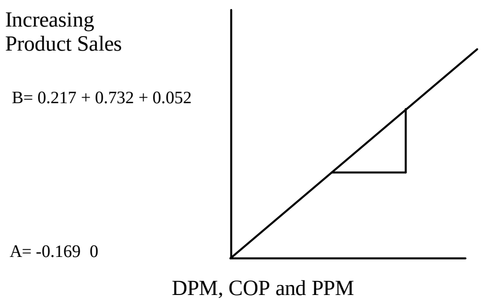

Table 2: Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	PPM, COP, DPM[b]	.	Enter

Note: a. Dependent Variable: IPS; b. All requested variables entered

Table 2 shows that all the independent variables are entered. This shows the relationship can be evaluated.

Table 3 gives the coefficient of correlation (r) as 0.922, implying high positive relationship of up to 92% between the independent and dependent variables.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.922[a]	0.850	0.837	0.31144

Note: a. Predictors: (Constant), PPM, COP, DPM; b. Dependent Variable: IPS

4.0 Testing of Hypothesis

4.1 Test of Hypothesis One (H_1)

4.1.1 Hypotheses One

H_1: Dynamic pricing model is effective in winning customers in manufacturing industry.

4.1.2 Interpretation

The correlation value has shown that the level of significance is 0.00, which is smaller than the alpha value of 0.05. This means the result is significant.

4.1.3 Decision Rule

Since Psig.< Pvalue (0.05). Hence, the alternative (**H_1**) is accepted. This means that dynamic pricing model is effective in winning customers in manufacturing industry.

4.2 Test of Hypothesis Two (H_2)

4.2.1 Hypothesis Two

H_2: - Cost oriented pricing model is effective in winning customers in manufacturing industry.

4.2.2 Interpretation

The correlation value has shown that the level of significance is 0.00, which is smaller than the alpha value of 0.05. This means the result is significant.

4.2.3 Decision Rule

Since Psig.< Pvalue (0.05). Hence, the alternative (H_2) is accepted. This means that cost-oriented pricing model is effective in winning customers in manufacturing industry.

4.3 Test of Hypothesis Three (H_3)

4.3.1 Hypothesis Three

H_3: - Penetration pricing model is effective in winning customers in manufacturing industry.

4.3.2 Interpretation

The correlation value has shown that the level of significance is 0.00, which is smaller than the alpha value of 0.05. This means the result is significant.

4.3.3 Decision Rule

Since Psig.< Pvalue (0.05). Hence, the alternative (H_3) is accepted. This means that penetration pricing model is effective in winning customers in manufacturing industry.

4.4 Discussion of Findings

Data collected from primary source were compiled, processed, presented, analyzed and interpreted in order to answer the research questions and achieve the research objectives. The findings of the study revealed that pricing models are highly significant to winning customers/consumers in manufacturing companies. It seems pricing model is a core marketing strategy in winning customers/consumers in any business organization. It was equally revealed in the study that pricing model takes creativity, time, research, good record keeping and flexibility in the strategic management of business organizations. Business organizations need to balance the costs of producing a product with competition and the perceptions of target customers/consumers to select the right product's sales price. Lastly, it was discovered that effective pricing model technique has a significant impact on sales increment in business organization, and the results of tested hypotheses are accepted because the three independent variables are highly significant to winning customers/consumers in manufacturing companies.

5. Conclusion and Recommendations

Dynamic pricing model, Cost-oriented pricing model and penetration pricing model are good pricing model strategies to winning customers/consumers in manufacturing companies. Customers/consumers are kings when it comes to taking steps that affect customers/consumers, therefore management of companies/industries must be very careful when setting the price of products. Sales price that customers/consumers must be willing to pay becomes inevitable. The findings of the study revealed that there exist significant relationships between the three independent variables and price control irrespective of other market forces. And this finding agree with other studies by Higendom (2003), Danzen, et al. (2004 and Bulow and Klemperer (2012).

Price control can easily be realized through the use of good pricing model. In other studies, sales prices are set considering law of demand and supply, prestige pricing model, bait pricing model, odd-even pricing model, full-line pricing model, etc. It is strongly revealed in this study that the three considered pricing models are efficient and effective if winning customers' patronage is the focus. Lastly, it is revealed in this study that efficient pricing models have positive significant impact on winning customers' patronage, which eventually leads to acceptance of the three formulated alternative hypotheses.

References

Abbott, T. A. (1995). Price regulation in the pharmaceutical industry: Prescription or placebo? *Journal of Health Economics*, 14(5), 551-565.

Bansal, R. and Yaron, A. (2004). Risks for the long run: A potential resolution of asset pricing puzzles.*The Journal of Finance*, 59(4), 1481-1509.

Berk, J. B. and Green, R. C. (2004). Mutual fund flows and performance in rational markets. *Journal of Political Economy*, 112(6), 1269-1295.

Berk, J. B. and Tonks, I. (2007). Return persistence and fund flows in the worst performing mutual funds. Working Paper 13042, National Bureau of Economic Research, 114(8), 126-129.

Breeden, D. T. (1979). An inter-temporal asset pricing model with stochastic consumption and investment opportunities. *Journal of Financial Economics*, 7(3), 265-268.

Booms, B. H. and Mary, J. (1981). Marketing strategies and organization structures for service firms. *Journal of American Marketing Association,* 22(3), 47–51.

Bulow, J. and Klemperer, P. (2012). iRegulated prices. India: New Delhi Publications.

Danzon, Patricia, M. Richard, W. and Liang, W. (2005). The impact of price regulation on the launch delay of new drugs: Evidence from twenty-five major markets in the 1990s. *Health Economics,* 14(3), 269-292.

Gilbert, S. (2000). Coordination of pricing and multiple period productions across multiple constant priced goods. *Management Science*, 46(12), 1602-1616.

Gorter, W. and Hildebrand, G. H. (1951). Is price control really necessary? *The American Economic Review,* 77-81.

Hargeaves, E. L. (1947). Price control of (non food) consumer goods. *Oxford Economic Papers,* 8, 1-11.

Hogendom, C. (2003). Collusive long-run investments under transmission price-caps. *Journal of Regulatory Economics,* 24(3), 271-291.

Jamisson, M. A. (2007). Regulation: Price cap and revenue cap. *Encyclopedia of Energy Engineering and Technology,* 3, 1245-1251.

Kent B. (2004). The pricing strategy audit. UK: Cambridge Strategy Publications.

Kent B. (2003). The Pricing strategy. UK: Cambridge strategy publications: McGraw Hill.

Kotler, P. (2012). Marketing management.Commercial use of conjoint analysis: A survey. *Journal of Marketing,* 11(46), 44–53.

Kotler, P. & Keller, K. (2006). Marketing and management. USA: Pearson Prentice Hall: Upper Saddle press.

Lauterborn, B. (2015). New marketing litany: Four Ps passé. *Advertising Age,* 61(41), 26-28.

Nagle, T. and Holden, R. (2002). Dynamic pricing on the Internet: Importance and implications for consumer behavior. *International Journal of Electronic Commerce,* 5(3), 63–83.