PRICING STRATEGIES AND CONSUMER BUYING PATTERNS IN A DIGITAL ECONOMY AMONG RESIDENTS OF GOVERNMENT RESIDENTIAL AREAS, ILORIN

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Abstract

The important of information technology cannot be over-emphasis especially now that customer's movement to the normal market is restricted and they must find all means to satisfy their needs. It is on this premise, that the study examined the impact of pricing strategies on the customer's buying pattern during digital economy. Three hundred and ninety (390) structure questionnaires were designed and distributed but only three hundred and seventy five (375) was filled appropriately and returned. Simple random sampling techniques used in selecting the respondents and Cochran formula for the sample size. Multiple regression analysis technique used and result shows p-value < 0.05, the null hypothesis was rejected and the alternative hypothesis accepted for the two tentative statements tested. The finding reveals there is positive relationship between mobile pricing strategies and dynamic pricing strategies among consumers. The study concluded and recommended that it is pertinent for the contemporary marketers/producers to take defensive measure in addressing issue of pricing as strategic during digital economy, 24/7 online customer service, and comprehensive information about product and the company .

Keywords: customer's buying pattern, digital economy, dynamic pricing strategies, mobile application pricing

Introduction

The emerging digital tools in the 21st century such as artificial intelligence, machine learning, edge computing, virtual reality & augmented reality, cyber security, block chain, internet of things and mobile devices have intensely altered how businesses and consumers get information, make decisions, communicate, give feedback, transact, and own versus share possessions around the world. It is necessary for organisations to strengthened and constantly update their internet software applications in so as give utmost satisfaction to both existing and potential customers (Ibojo & Asabi, 2015).

Digital economy so interesting that consumers get all information desired regarding product development, pricing changes, promotional incentives include where the goods and services can be received. In the digital economy, information have become an essential product, much in the way that oil is in the rest of the economy (Wedel & Kamakura, 2000). Kramer and Kalka (2017) digitization of the economy leads to great changes in the way companies design their product, determine their prices, develop effective promotional strategy and ensure easy delivery to enhance customer satisfaction. Information technology enables market researchers to obtain valuable and novel insights. There are many new sources of data, such as web traffic, social networks, online surveys, and sensors that track suppliers, customers, and shipments. Technology has assisted to shift the absolute power from manufacturers, companies or marketers to customers of goods and services who are better informed about the product and its company and the internet make it easy for customers to comparison shop for products literally around the globe (Shane-Hunt, Mello & Deitz, 2018). Kotler and Keller (2015) viewed price as the major determinant of customer's buying pattern, they put more pressure on retailers to lower their prices and retailers in return put pressure on manufacturers to lower their prices. Pricing as one of the element of marketing remains most flexible factor that determine the survival of any organisation and in achieving other elements objective like product, promotion and place depends greatly on the appropriate pricing strategies adopted by them. Goods and services must be priced in a way that achieves profitability for the intermediaries and satisfies customers (Berman, Evans & Chatterjee, 2018). According to Keller and Kotler (2016) Price is not just a number on a tag of a goods or services, it means many forms and performs many functions like rent(property), tuition (school), fares (bus), fees (professional), rates (utility), tolls (stadium) , retainers, wages, and commissions are all the price you pay for some good or service. In the views of Kotler (2004) pricing process is critical because marketers need to ensure they fix prices that are beneficial to the parties involved in the marketing process, that is, a price that serves the customer well so as to maximize business profits. Price is an important and powerful marketing tool because it is closely associated with revenue and returns on investment (Dixon-Ogbechi,2015). In view of the afore-mentioned, this study examined the effect of pricing strategies on customer's buying pattern in a digital economy.

Research Objective

The main objective of this study is to examine if pricing strategies influence customer's buying pattern in digital economy. Specific objectives are to:

(i)   Determine if mobile application pricing strategies in comparing product's prices enhanced customer's buying pattern in a digital economy.

(ii)   Assess if effective dynamic pricing strategies influenced customer's choice in a digital economy.

Literature Review

According to Odia and Agbonifoh (2015) to ensure effective online transactions achieved, organisations could use   form of face-to-face interpersonal communication or the new social media networking by means of SMSs, Whatsapp, Twitter, Instagram, Snapshot etc. The general purpose of this study is to examine the impact of pricing strategy on customer's buying pattern during digital economy.

Kramer and Kalka (2017) opined that there are four pricing models that depict the digital economy and led to a certain disruption in pricing and in customer buying patterns: (i) the free (no charge) offering, (ii) freemium model (free + premium), (iii) the subscription model, and (iv) the dynamic pricing. This is the marketing element that serves as the major focus for specific. According to Oniku (2016) pricing is a tool that can be used to defend an existing market from new entrants, to increase market share within a market or to enter a new market. In the opinion of Poindexter (n.d) price is the value that customers give up or exchange to obtain a desired product. Payment may be in form of money, goods, services, favours, votes, or anything else that has value to the other parties involved. Moreso, Kotler (2004) said pricing process is critical because marketers need to ensure they fix prices that are beneficial to the parties involved in the marketing process, that is, a price that serves the customer well so as to maximize organisational profits.   Pricing is an important aspect of marketing and is one area of business that marketing managers hardly ever talk about with great enthusiasm, Yet, pricing decisions truly make or break a company's bottom line and many organisations navigate today's demanding markets without the aid of a carefully designed and executed strategy especially now that businesses have been digitalised. As a result, many pricing decisions are a poor blend of weak assumptions and overly simple heuristics that shun customers and competitors, and thus do little to improve the long-term health of the business. As a much-required satisfying mix, the price must be right to the estimation of the target market audience especially now that the

customers have first- hand information about the product's features and its close substitutes (Keller&Kotler,2016).

Customer consciousness and behaviours to price changes varies from one market to another and from one strata of customer to another, then tasking the efficiency of marketers in meeting various needs and at the backdrop of their own inalienable right to positive return on investment. We usually think of this exchange as people trading money for a good or a service. Many companies have found themselves facing the problem of inflation, stagnant demand, and increasing competition from foreign-companies due to the government trade liberation (Ogunrinde, 2010).

Contemporary pricing strategies are faced with certain challenges and they emanated from decision makers in an organisation due to their perception on price.

    i.   Organisation belief that pricing decisions is independent of other marketing mix elements which is not true.

    ii.   Failure of product differentiation make pricing decision monotonous when organisation fail to differentiate their product.

    iii.   When pricing decision is defensive rather than offensive to challenge leader in the market (Dixon-Ogbechi, 2015).

Pricing Strategies in the Digital Economy

There are various pricing strategies applicable to digital economy which can enhance customer satisfaction and businesses can leverage to achieve profitability objective but this study discussed only two that are specific to its objective viz, dynamic pricing and mobile application pricing.

Dynamic Pricing Strategies: A pricing tactic that involves constantly updating prices to reflect changes in supply **(**Shane-Hunt, Mello and Deitz, 2018).Keller and Kotler (2016) Customers are getting savvier about how to shun overpaying bills, changing their buying behaviour to entertain the new realities of dynamic pricing through the advent of information technology. But most are probably not even aware of the degree to which they are the targets of discriminatory pricing. What is new about today's form of price discrimination is that current technology has made dynamic pricing not only widely possible but also commercially feasible and faster. Currently, technological development has improved and advanced (Kramer & Kalka, 2017). Digital companies offer customer accounts in which all the essential data is saved for official purposes, they know about the search behaviour of

customers and their preferences, even being able to discern the probability of them terminating their relationship with a particular company product. dynamic pricing is not to be regarded as an acquisition instrument to attract new customers. It is more a general rule and the fact that prices can vary due to specific factors is not openly communicated to consumers. In Nigeria, while dynamic pricing is not new, its general acceptance has grown over the years due to infrastructural advancement in the area of information technology that facilitate its use most businesses like Multichoice (Dstv), Starttimes, IBEDC, retails mall have adopted this pricing strategies where customer can pay within a second in the comfort of their home.

Mobile Application Pricing: Shane-Hunt, Mello and Deitz (2018) viewed android and other technological gadgets have reveal a new era of pricing transparency. Customers now make use of wireless applications and other search engines like google chrome, firefox, opera, Microsoft edge on their mobile devices in stores to make comparison about product price. In response, companies at traditional brick-and-mortar stores aggressively review the prices of online stores when setting the initial price of an item as part of their analysis of the competitive price environment. According to Chiappalone (2017) opined that Previous researches on mobile market submitted price as the most important factor for customers when evaluating applications, especially when Freemium pricing model was found to be an effective strategy to increase applications demand.

Pricing in a Digital World

Keller and Kotler (2016) opined that generally price has been major determinant of buyer choice in buying both consumer and business goods. Consumers and purchasing agents who have access to price information and price discounters put pressure on retailers to lower their prices. Retailers in turn put pressure on manufacturers to lower their prices. The result can be a marketplace characterized by heavy discounting and sales promotion. Downward price pressure from a changing economic environment coincided with some longer-term trends in the technological environment. For some years now, the Internet has been changing the way buyers and sellers interact. Here is a view of how the Internet facility allows sellers to discriminate between buyers and buyers to discriminate between sellers. From the buyer's perspective :

Price comparisons from different sellers. Customers can compare the prices offered by multiple retailers by clicking on the internet. Intelligent shopping

agents ("bots") take price comparison a step further and seek out products, prices, and reviews from hundreds if not thousands of businesses.

Price checking at the point of purchase. Customers can use different smart phones to make price comparisons in stores before deciding whether to make purchase or postponed, insist the retailer to match or better the price, or they buy elsewhere.

Name their price and search for the product that meet their need. Customers state the price they want to pay for a good or service, and then check internet for any seller willing to meet that price.

Free product. Open source, the free software movement that started with Linux, will erode margins for just about any company creating software. The biggest problem confronting many businesses in Nigeria (i) how do you compete with products that can be had for free? "Marketing Insight: Giving It All Away" describes how firms have been successful with essentially free offerings.

Seller's perspectives during digital economy in order to satisfy and provide buyers need

Monitoring customer behaviour and provide offers to buyers. Businesses which gets large pricing requests a year from its B2B customers, have a software system that evaluate these factors going into a pricing quote, such as past sales data and discounts, so it can reduce processing time from up to 30 days to six hours.

They give customers access to special prices. Some companies that sell expensive women's wear, accessories, and footwear through limited-time sales period, usually two-day events. Marketers are already using extranets to get a precise handle on inventory, costs, and demand at any given moment in order to adjust prices instantly.

Theory of Price Sensitivity

Price setting depends not only on customer' perceptions of quality, benefits and value but also on their sensitivity to price. The impression of price sensitivity relies on the premise that customers decide whether to buy or not to buy the product by comparing benefits received for the price they pay (Smith&Woodside,2015). Though, this theory proposition presumes that customers actually know the price they pay for their purchase. In fact,

marketing researchers report considerable variance in customers' sensitivity to prices: some pay little concern to price while others pay more attention to price. Monroe (2002) contended that price sensitivity is viewable along two separate factors: price awareness refers to the ability of the buyer to remember prices; price consciousness denotes the buyer's sensitivity to price differentials, where differentials appears to refer to the differential between the buyer's internal reference price and actual price. According to Lilien and Kotler (1983) note that a price-aware customer may not necessarily be a price-sensitive buyer .They suggested that price recall is only a measure of price ''awareness,'' but ''price sensitivity'' represents a deliberate effort to search for lower prices, a behavioural dimension. In addition to the cognitive dimensions of price awareness and price knowledge, Monroe and Petroshius (1981) suggest that price sensitivity has not only a behavioural dimension but also an attitudinal component. Certain customers are innately ''scotch'' attitudinally and prefer to not spend money, and hence are prone to search carefully before parting with their money while others are more cognitive and simply search for the best long-term value for their money. Both types of buyers may search significantly, but the ''Scotch'' person may buy the cheapest alternative; while the more cognitive person may buy another alternative that is more expensive in the short term, but is perceived as less expensive in the long term.

Methodology

This study examines the impact of pricing strategies on the customer buying pattern during digital economy, a study of residents of government residential area in Ilorin metropolitan, Umar Audi road, Ilorin, Kwara State, Nigeria. According to Mooi, Sarstedt and Mooi-Reci (2018) explain descriptive research about describing certain phenomena, characteristics or functions. It may focus on one variable (e.g., performance.) or on two or more variables at the same time (profitability, turnover etc.) and the relationship between dependent and independent variables. Survey method was adopted to collect data for the study, both primary and secondary data were explicitly used in the conduct of this study. The primary data was obtained through structured questionnaire administered by the respondents (residents of government residential areas) while the secondary data includes textbooks, journals, audio materials relatively connected to the study. The target population is mainly the residents of government residential area (GRA) in Ilorin estimated to be 50,545 (fifty thousand, five hundred and forty-five) households and major reason remains that we believed they are more informed customers in term of using digital tools for

almost all their transactions from time to time. Again, due to the large population of the respondents, the Cochran formula was used to determine the sample size of three hundred and eighty five (385), since the formula assumed a greater percentage of larger population and also, simple random sampling technique was used. Three hundred and ninety (390) structured questionnaires were designed and distributed to the respondents but only three hundred and seventy five (375) were filled correctly and returned by the respondents. Three hundred and seventy five was also used for the study analysis.

The Cochran formula allows you to calculate an ideal sample size given a desired level of precision, desired confidence level, and the estimated proportion of the attribute present in the population. Cochran's formula is considered especially appropriate in situations with large populations.

Sample determination by Cochran formula:

$$Ss = \frac{Z^2 pq}{e^2}$$

Where
e is the desired level of precision (margin error)
p = estimated proportion of the population
q = 1-p
Therefore

$$\frac{1.96^2(0.5)(1-0.5)}{0.05^2} = 385$$

Study Hypotheses

H_{01}: There is no significant relationship between mobile application pricing strategies and customer's buying pattern in a digital economy.
H_{02}: There is no significant relationship between dynamic pricing strategies and customer's choice for product in a digital economy.

Analysis
Descriptive analysis of Demographic Data
Table (i)

Items			Total(%)
(i)	Gender:	Male	275 (73.33%)
		Female	100 (26.67%)
			375
(ii)	Age:	Below 21	43 (11.47%)
		21 – 40years of age	202 (53.87%)
		41 – 60years of age	40 (10.67%)
		61 – 80years of age	60 (16%)
		81 – above	30 (8%)
			375
(iii)	Educational Qualification:	SSCE/ OND/NCE	59 (15.73%)
		HND/B.Sc/M.Sc.	243 (64.8%)
		PhD.	73 (19.47%)
			375
(iv)	Marital Status:	Single	60 (16%)
		Married	257 (68.53%)
		Divorced	58 (15.47%)
			375
(v)	Occupation:	Student	43 (11.47%)
		Professional/Technocrat	202 (53.87%)
		Civil servant	30 (8%)
Total:			**375**

Source, SPSS Output, 2020

From the table (i) above, the analysis reveals most respondents are male with 73.33% which support the general African culture that husband remains the head of the family, the age bracket 21-40years with 53.87% indicated that most residents in the government residential area, Ilorin are adults meaning by implications they are independent in their buying pattern. Also, 64.8% have first and secondary degree which implies that marketers need to keep updating their websites to woo and appeal to this segment of customers. The table reveals, the highest percentage of 68.53% respondents are married which is a signal to marketers/producers in been proactive in their pricing strategies since married couples in Nigeria have many responsibilities to shoulder ranging from domestic to extended family. Also, 53.87% of the respondents are largely technocrats/professionals which supported the true household's structure living in government residential

areas (GRA) in Nigeria and truly reliable to elicit information regardings the main objective of this study.

Test of Hypotheses

Ho$_1$:   Mobile application pricing strategies has no significant effect on Customer's buying pattern during digital economy.

Table (i)   **Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774[a]	.599	.597	.49171
a. Predictors: (Constant), Mobile application pricing strategies				

Source: SPSS Output, 2020

Table   (ii) presents the model summary. It reveals that the correlation coefficient R is 0.774 (i.e. R = 0. 774) which indicates that there exists a strong   relationship between Customer's buying pattern (dependent variable) and mobile application pricing strategies (independent variable). It is obvious statistically from the table that the R^2 which is the coefficient of determination is 0.599 approximately 60%. This implies that 60% change in mobile application pricing strategy will lead to favourable change in the Customer's buying pattern. While the remaining 40%, is explained by other factors that are not captured in the model.

Table (iii) ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.576	1	54.576	225.727	.000[b]
	Residual	36.509	151	.242		
	Total	91.085	152			
a. Dependent Variable: Customer's buying pattern						
b. Predictors: (Constant), Mobile application pricing strategies i.e. freemium, free, paid,paymium						

Source: SPSS Output, 2019

Table (iii) above analyzed to reveals the relationship that exists between the dependent variable (customer's buying pattern) and the independent

variable where proxies variables used are freemium pricing strategy, free mobile pricing strategy, paid mobile pricing strategy and paymium mobile pricing strategy. From the ANOVA table, p-value 0.000 which is less than 0.05 since p-value < 0.05, the null hypothesis (Ho) is rejected and the alternative (Hi) is accepted that there is statistical significance between mobile pricing strategy and customer's buying pattern during digital economy,

Ho$_2$:   Dynamic pricing strategy has no significant influence On Customer's buying pattern during digital economy.

Table (iv)   Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.733[a]	.537	.534	.47122
a. Predictors: (Constant), Dynamic pricing strategy				

Source: SPSS Output, 2020

The above table (iv) presents the model summary. It reveals that the correlation coefficient R is 0. 733 (i.e. R = 0.733) which indicates that there exists a strong relationship between Customer's buying pattern (dependent variable) and dynamic pricing strategy (independent variable). It is also crystal clear from the table that the R^2 which is the coefficient of determination is 0.537 approximately 54%. This implies that 54% change in customer's buying pattern during digital economy can be explained by effective dynamic pricing strategy imbibed by the marketers to the target population under this study. While the remaining 46%, is explained by other factors that are not captured in the model.

Table (v) ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.913	1	38.913	175.249	.000[b]
	Residual	33.529	151	.222		
	Total	72.442	152			
a. Dependent Variable: Customer's buying pattern						
b. Predictors: (Constant), Dynamic pricing strategies (peak, off-peak, early birds, e.t.c)						

Source: SPSS Output, 2020

From the table (v) above, p-value 0.000 which is less than 0.05 (sig) and since p-value < 0.05, which by implications, we rejected the null hypothesis and accepted the alternative. Therefore, there is significant relationship between dynamic pricing strategies (peak period pricing strategy, off-peak pricing strategy, early-birds pricing strategy and weekend pricing strategy) and customer's buying pattern during digital economy among the residents of government residential area in Ilorin.

Discussion of findings

The hypotheses tested show that there is significant relationship between the dependent and the independent variables. From the hypothesis 1 (one) the result reveals(r= 0.774) meaning there is a positive relationship between mobile pricing strategies and customer's buying pattern i.e. for any changes in the level of mobile pricing strategies, there will be favourable buying pattern from the customers. Also, the result (r=0.733) for the hypothesis ii (two) by implication reveals positive relationship between dynamic pricing strategy and customer's buying pattern among the residents of government residential area, Ilorin. The above results are in accord with the study conducted recently by (Levit, list, Neckermann & Nelson 2016; Kramer & Kalka, 2017).

Conclusion

In view of the primary data generated from the respondents and analysed for the purpose of this study, The result concluded that there is positive relationship between the independent variable (pricing strategies) and dependent variable (consumer buying patterns) thus, pertinent for the contemporary marketers/producers to take defensive measure in addressing issue of pricing during digital economy. The result concludes that there is positive relationship between mobile pricing strategies and dynamic pricing strategies and customer's buying pattern during digital economy. It was concluded from the result that proxies variable like freemium, free, paid, paymium types of mobile application pricing strategies have great impact in enhancing customer buying pattern in a digital economy. The results shows peak-period pricing strategy, off-peak pricing strategy, early-birds pricing strategy and weekend pricing strategy if effectively planned, designed and implemented will influence customer's buying pattern during digital economy.

Recommendations

There is no doubt that, the world is going digital and for all producers of goods and services to be relevant in the business environment and win the soul of their target customers, all activities must be virtual and friendly user. Following recommendations have been raised base on the following conclusion. Firstly, producers/marketers must be keep up-to-date information virtual for the whole world to see what they sell, where they can get it, at what price and other incentives meant for all existing, potential and prospective buyers. Secondly, a holistic approach is required for the producers in switching all transactions from the traditional method of transaction to digital form. Thirdly, pricing strategies adopted must not be offensive or exploiting in nature rather than defensive through appropriate online ads. Also, there should be an active 24/7 online customer service who are ready to assist customers in case of query or information regarding the company and her product and value attached to it. There is need for urgent infrastructural development and modern information technology equipment to enhance customer satisfaction.

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