THE ROLE OF VALUE-ADDED SERVICES IN DETERMINING THE RELATIONSHIP BETWEEN DYNAMIC PRICING AND CUSTOMER BUYING DECISION, WITH SPECIFIC REFERENCE TO AMAZON.

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ABSTRACT

With the rise of online retail, the sales game has gone up a few notches. Strategies that once proved to be fail-safe ways to secure business have become archaic, leaving companies struggling to develop new tactics to beat their competitors and rein in and retain customers. Even though a lot has changed in how sales-driven businesses approach the future, the pricing factor remains the same in persuading consumers to consider one company over another for the same product or service. The phenomenon of Dynamic pricing has been introduced in the last few years where large quantum's of data are analysed and ideal prices for items are calculated. The time between the changes in prices depends on the business and item, but can be changed as often as every day, or even every hour. Because of this strategy, our company under study, Amazon, is able to adjust to the lower cost of eCommerce and maximize profit on all fronts. With this technique Amazon is able to set flexible prices for products based on current market demands, trends, perishability of the product etc. Dynamic pricing, aka. surge pricing is a pricing strategy in which businesses set flexible prices for products or service based on current market demands, footfall etc. The time between prices, varies depending on the business and the item they are selling and can be as often as every hour, in case of Amazon. Though a vital tool for online sales, dynamic pricing has resulted in upset consumers who may find the inconsistent pricing to be deceitful. This paper, therefore brings in the moderating variable of value added services to understand if they can affect the customer buying intention, even with the negative effects of the Dynamic pricing strategy. The aim and purpose of this study is to understand the impact of dynamic pricing on customer buying intention fluctuation by using value added services as the moderating factor.

Keywords: Dynamic pricing, Customer buying intention, Amazon, Value-added services, Perceived price fairness.

I.　INTRODUCTION:

A number of e-retail websites like Amazon, Flipkart etc have been following variable pricing and Dynamic pricing techniques for the longest time. Variable Pricing technique is a pricing tool that increases or decreases the prices of products after considering a number of factors like demand, competition, footfall etc. Since the volatility of these price changes are very high the customers may sometimes be dissatisfied with the results of their shopping because the prices can fall post purchase. There are 2 types of behavioral outcomes that can be seen as a result of this kind of pricing. The customers either ignore the discrepancy in pricing and go ahead and complete their purchase or they decide to switch to another retailer offering better prices or better features in the same price. So, the study also helps in finding out if value added services act like mediators while influencing the customer buying intent.

II. LITERATURE REVIEW:

2.1 Dynamic Pricing

The results were drawn as a basis for further drawing inference on perceived price fairness with customer loyalty as the moderating factor. Dai used Structural Equation Modelling to find how the magnitude and temporal proximity of change in prices affects customer buying intention. The outlook of people towards these prices in terms of favourable or unfavourable behaviour serves as a basis to evaluate the pricing strategies like promotions, multi product pricing and surge pricing.Bo Dai (2010)

Light is drawn on the importance of other factors like service attribute-level performance and satisfaction, apart from just price, that would help in retention of customers overtime. This paper talks about the 3 kinds of pricing , namely: fair price, fixed price, and relative price, used to affects purchase decision in customers. It also focuses on how people tend to return products that they buy online whenever they feel that they have been overcharged. It focused on how the customers compare prices from different prices before choosing one best option and that they are always on the lookout for opportunistic returns. Pingjun Jiang (2004).

2.2 Customer Buying Intention

Dr. Sandra Rothenberger (2015) This paper suggests that price transparency is an important factor influencing customer judgments of perceived price fairness. Intellectual judgments of the price fairness require a specific amount of information processing; therefore, the level of transparency of information and the quality of price information affect price fairness judgments. The more authentic and true the information consumers possess is, the more positive their judgment will be.

Njeru, I. M. (2017) addresses the gap concerning how pricing strategies can influence consumer purchase decisions. The first objective was to find out the extent to which EDLP Strategy and High-Low Pricing Strategy were implemented in Nairobi County supermarkets. The second goal was to determine the level at which Nairobi's customer purchasing intentions are affected by Everyday low price strategy. Finally, the third goal was to determine to what degree high pricing strategies have an impact on consumers purchase intentions in Nairobi. Lastly, the third goal was to determine the level to which high-low pricing strategies in Nairobi County affect consumer purchase decisions. The study was very region specific, however a certain pattern of customer behaviour was observed, which speaks a lot a about how customers would react in general.

Alison Lloyd (2017) looks into the reactions elicited by customers when they are subjected to dynamic pricing and shows that customers show asymmetric responses to frequent and large price differences. Subsequently, customers who give a higher price for a product, whose price immediately falls post purchase, has more chances of switching stores, complaining and spreading negative word of mouth, while customers whose product prices increase post purchase show contentment by not switching stores or complaining and indulging in repeated purchases. Negative emotions experienced by customers results in a perception of unfair pricing which may hamper the image of the company in the long run. The findings suggest that managers should exert care when introducing a relatively large price difference, in order to reduce the negative effects that tag along with dynamic pricing. This paper has very close proximity of what we are trying to achieve in
this paper.

2.3 Value Added Services

Soheila Sardar Donighi (2015): Service quality is a very important and critical factor involved in determining customer satisfaction because it helps companies weigh in on that competitive advantage even when there is a lack of product differentiation. The benefits and impact of value added services can be understood from here.

Vijay Victor (2018) This paper talks about the advent of humungous changes in information and technology because of which deeper analysis of data becomes possible to provide better insights and profitability which otherwise wouldn't be possible with the traditional analytical techniques. It is therefore important to analyse the probable changes in consumer behaviour that may result out of the pricing techniques currently being applied. An exploratory factor analysis technique is used to figure out the impact that dynamic pricing would have on the purchase intentions of customers.

III.　Research objectives

To examine if Value added services moderate the relationship between Dynamic pricing and customer buying intention fluctuation among Amazon users.

IV.　Research Gap

Research on Dynamic pricing has been done with focus on specific variables like footfall or demand. Most researches show the demand of Dynamic pricing strategy on customer buying behavior directly or by studying certain variable factors like customer loyalty. But in this paper, we shall aim to bring into account the moderating factor "Value Added Services" and how these could act as a deterrent to the negative impacts of the Dynamic pricing strategy, if they exist. The question that is focused on here is, whether the benefits provided by the companies outweigh the dissatisfaction that arises out of Dynamic pricing. With the dawn of big data, it has been possible for online sellers to make real time changes to prices to benefit their situations even more. However, with the widespread availability of information, customers have become all the more informed regarding modern pricing techniques. It is therefore important to analyse the probable changes in consumer behaviour that may result out of the pricing techniques currently being applied.

V.　Conceptual Framework
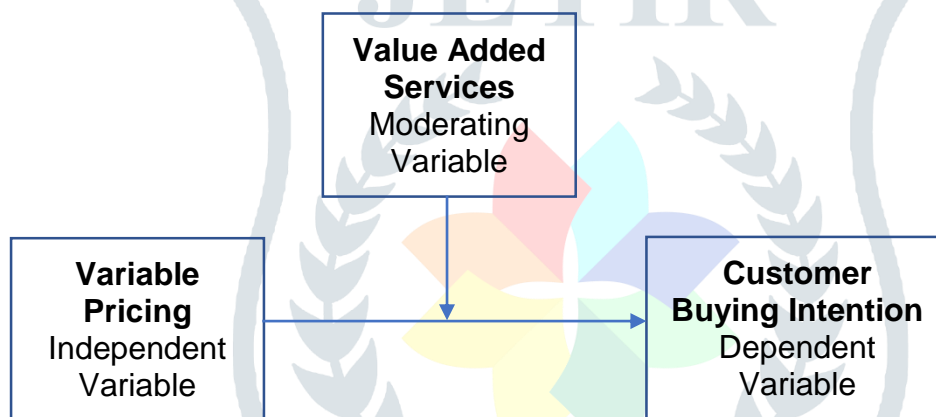
A conceptual framework has been made for this study where the impact of Dynamic pricing on Customer buying intention fluctuation is measured with Value Added Services being the moderating factor. The ultimate decision of making a purchase depends on a variety of factors. Customer satisfaction and re-purchase intention depends on the perceived price fairness and that ultimately impacts the purchase decisions. This difference in price, a discrepancy between prices paid by customers for the same product and there actual prices can result in a disadvantage or advantage. This disadvantage would trigger negative price fairness perceptions. The present study tries to find out if value added services can act as a remedy to reducing the negative effects that arise out of Dynamic pricing, that inversely affects the purchasing intention of customers. To what extent do value added services influence consumers' perception of price unfairness or reduce the negative impact of perceptions of price unfairness under disadvantageous conditions

3.1 Theoretical Framework

3.1.1　Social Comparison Theory

Under the social comparison theory, the human nature of comparing options before, and in some cases, even after purchase are shown. A social comparison, may affect the fairness judgement of a person and make alterations to his attitudinal/ behavioural outcomes. Price discrepancy, can easily be noticed because of its distinctiveness to each seller and buyer. When customers get to know that they've been charged more than the

other customers for the same product, with changes being made in prices in close temporal proximity, this can elicit negative emotions, provoke revenge intentions, negative word of mouth etc.

3.1.2 Construal level Theory

Under this theory, the perceived fairness of the product, has directly to do with the magnitude and temporal proximity of the change in prices of the product. If the changes in prices are very frequent i.e. in close temporal proximity, then the perceived unfairness of the price would be more. Also the magnitude of change being brought about, if large would result in negative attitudinal outcome, but if the price discrepancy is very less, it is often ignored and does not elicit a strong negative emotion.

VI. RESEARCH METHODOLOGY:

Since the research conducted depends a lot on the individual perceptions of price fairness and statistical truths of individuals using Amazon. The questionnaire used is with reference to various extant literatures to measure the variables in question by using the similar constructs, structure and questions. The questions were however modified to the context of this research. Random sampling technique was used for sampling where questionnaires were circulated to people who use amazon, irrespective of their frequency of purchases.

4.1 Selection of Attributes

Although a lot of studies have already been conducted in respect of the relationship between dynamic pricing and customer buying intention, but none of them are specific to Amazon and Dynamic pricing as a moderating factor between the relationship of the two. A conceptual framework is devised to examine the relationship between the 2 factors and the moderating factor: Value Added Service. The following are the variables:

1. Dynamic pricing and Customer Buying Intention.
2. Value Added Services and Customer Buying Intention.
3. Customer buying intention fluctuation

4.2 Development of Hypothesis

H1: There is a significant impact of Dynamic pricing Strategy and Value Added Services on Customer Buying Intention.

4.3 Survey Pool & Data Collection

Random Sampling Technique was used to collect primary data using questionnaire. The target study for this population was people who use Amazon for shopping online. Most of the population included people from the age group 18-30. Users of this group are known to be extensive online buyers, in comparison to the other age group of people above 30. So, most of the answers were collected from the millennials category. Convenience and Random (Non- Probability Sampling technique) sampling was used to collect an ideal sample size of 100 responses, since this number of responses would be adequate to help us find the answers we are looking for.

- Sample Design Population: Urban, internet using e-retail customers
- Sample Size: 128 people (Adequate according to SPSS)
- Sampling Technique: Random Probability Technique

4.4 QUESTIONNAIRE DESIGN:

To measure the impact of Dynamic Pricing on Customer Buying Intention Fluctuation a questionnaire was prepared and circulated to amazon users in Bangalore and mostly Christ itself. The demographics included a larger population of college going youth in comparison to the middle aged population and therefore the results

from this study are very useful for understanding the mentality and preferences of the millennial when it comes to having dynamic pricing as a tool of determining prices on Amazon.

Constructs	No. of questions/items
Dynamic Pricing	11
Customer Buying Intention Fluctuation	5
Value Added Services	4

VII.   RESULTS AND ANALYSIS

5.2 Hierarchical Multiple Regression:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.838[a]	.702	.685	2.80319	.702	41.256	126	128	.000

a. Predictors: (Constant), Value Added Services, Dynamic Pricing

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	648.368	2	324.184	41.256	.000[b]
	Residual	275.026	126	7.858		
	Total	923.395	128			

a. Dependent Variable: Customer buying intention Fluctuation
b. Predictors: (Constant), Value Added Services, Dynamic Pricing

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	-5.665	4.807		-1.178	.247			
	Dynamic Pricing	1.148	.230	.763	4.982	.000	.836	.644	.460
	Value Added Services	.114	.192	.091	.596	.555	.701	.100	.035

a. Dependent Variable: Customer buying intention Fluctuation

Hierarchical Regression analysis was used to test the moderating effect of Value Added services on the relationship between Dynamic pricing and Customer buying intention fluctuation among Amazon users. The result of the regression coefficient table indicated that Dynamic pricing & Value Added Services did account for variation in Customer buying intention fluctuation. The Independent variable (Dynamic Pricing & Value Added Services) explained 70.2% of variance in the dependent variable i.e. Customer buying intention Fluctuations (R^2 =0.702, $F(2, 35)$ = 41.256, $p< 0.01$).

Thus the alternative hypothesis is accepted and the null hypothesis is rejected and there is a significant moderating influence of Value Added services on the relationship between Dynamic pricing and Customer buying intention fluctuation among Amazon users. The anova table shows that the model is significantly good enough to predict a moderating influence of Value Added services on the relationship between Dynamic pricing and Customer buying intention fluctuation among Amazon users.

Customer buying intention fluctuation= 0.114(Value Added Services)+ 1.148(Dynamic Pricing)- 5.665

5.3 Multinomial Logistic Regression:

Model Fitting Information

Model	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	432.560			
Final	284.763	147.797	208	.000

The model fitting information table includes the likelihood ratio chi- square test which compares the full model (the one with all the variables) against the null model (with no intercept). The Statistical significance level indicates that the full model displays a significant improvement in fit over the null model. We see that the final model has a significant improvement in fit over the null model. (Chi-Square= 71.567, p<0.05). The 'model fitting information' table shows that the moderating variable- Value Added Services, is statistically significant and it improves the model.

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	784.841	272	.000
Deviance	270.378	272	.516

The "Goodness of Fit" table contains the Deviance and Pearson Chi-square tests, which are useful for ascertaining whether a model exhibits good fit to the data. Non-significant test results signify that the model fits the data well. It is to be noted, however, that the pearson and deviance result may not always give the same result. As it can be seen in this case, the Pearson fit is significant while the Deviance is not. So we have obtained a mixed result as such. The **Goodness-of-Fit** table shows the sig. level i.e p= .000 which is less than .05, which indicates the model has a good fit but the high value of chi square= 784.48, shows that the model may not fit the data well. It can be interpreted that the data collected from the respondents was biased.

Suggestion   The current study used questionnaire methods to collect data. The respondents could have given their response based on various other thought processes that could have biased their responses.

Likelihood Ratio Tests

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	284.763[a]	.000	0	.
ValueAddedServices	362.913[b]	78.150	16	.000
DynamicPricing	299.929[b]	15.166	192	.001

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

b. Unexpected singularities in the Hessian matrix are encountered.
This indicates that either some predictor variables should be excluded
or some categories should be merged.

Likelihood ratio table shows that the 2 variable: Dynamic Pricing, p=0.000 and Values Added services, p=.001, are less than .05, showing statistical significance. The 2 independent variables VAS and DP are both less than 0.05 and this suggests that they have a significant impact on the dependent variable i.e CBIF. CBI is taken as a reference category. So when we compare we compare Dp and VAS to CBI, which is the ref category.

Pseudo R-Square

Cox and Snell	.525
Nagelkerke	.527
McFadden	.530

Pseudo R square says that the 2 independent variables how much variation they show on the dependent variable. It shows the degree of variation brought about by the independent variables on the dependent variables. For the same consider McFadden's value. So it is safe to say that if there is high variation, the independent variables are impacting the dependent variable a lot. But if it is lesser then 0.5, then there are more variables that should be considered to show a significant impact on the dependent variable. In all three of our cases it can be seen that the variation is above 0.5 which means that there is high variation on part of the independent variables on the dependent variables, i.e dynamic pricing and value added services on customer buying intention fluctuation.

The Pseudo R square ranges from .000 to 1.000 which suggests the degree of variation on the dependent variable by the independent variables. A 1.000 would indicate perfect variation anything less that that would indicate a variation, but would also leave scope for other variables effecting the dependent variable.

So it can be concluded from this table that DP and VAS do affect CBIF, but there are more factors that would bring about variation in CBIF. So, those variables can be considered in future studies.

VIII. CONCLUSION:

The findings from this study indicate that value added services definitely have a moderating impact on the fluctuation in customer buying intentions that arise from Dynamic Pricing. The regression equation derived to prove the influence of Dynamic pricing and value-added services on the variations arising in customer buying intention.

Customer buying intention fluctuation= 0.114(Value Added Services)+ 1.148(Dynamic Pricing)- 5.665

Research conducted on consumer- based perceived price fairness in context of dynamic pricing has been very limited. The research studies that already exist, look into which factors cannot moderate the negative impact of dynamic pricing on value added services. In this particular study, we have chosen value- added services to be that variable.

Most of the people, through the survey, have made it clear that price volatility on Amazon bothers them. People have made it clear that they are unhappy with frequent changes in prices and they usually do not attribute these changes in price to inflation. It can therefore be inferred that people perceive these prices to be unfair. People however feel that if value added services are provided along with the product and service offerings, then the price may be justified. This further highlights the fact that this maybe a factor of customers brand loyalty towards Amazon.

Amazon users have also stated that they may change their retailer if someone else offered better prices. There have been various instances where most of the people from our sample size have returned products because they viewed the price to be unjust. When asked about their preference of Amazon over its competitors in general and on the grounds of the value-added services they provide, people chose Amazon every time.

This study also provides an extended insight on the importance of additional services which seem to be of some value to the ultimate consumers. Variables like these are able to significantly influence the purchase decision of customers, even when the study clearly indicates that people are price sensitive. A lot more emphasis should be given on the quality of after sale services, on time delivery, payment options etc. that would help Amazon get an edge over its competitors at least in price competitiveness.

32.91% of the people however feel that they still would be hesitant in paying a little extra for the value-added services that come along with the product. Therefore, it could be inferred that companies should try imputing the cost of the value-added services in the product itself, without having to charge extra for it. This way, value added services would be able to have a moderating impact on customer buying intention.

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