Surety and security of transactions using upgrading web-system

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Abstract— **This paper considers pricing and web system upgrading problems for an online retailer facing a group of strategic customers. Due to various website issues, there is a possibility of transaction failure in the process of customer online purchasing. Strategic customers will anticipate this possibility and make purchasing decisions based on their belief on transaction success probability (TSP). First, we prescribe a threshold policy for customer purchasing: The customer will buy the product if his valuation for this product is above a threshold and will not otherwise. The threshold increases as TSP decreases, customer transaction cost increases, or customers become more risk averse.**

Keywords—**Upgrading web system, transactions ,customer strategy**

1. I.INTRODUCTION

First, we prescribe a threshold policy for customer purchasing: The customer will buy the product if his valuation for this product is above a threshold and will not otherwise. The threshold increases as TSP decreases, customer transaction cost increases, or customers become more risk averse. Second, we derive the optimal price of each period and identify the optimal policy for web system upgrading: There exists a threshold for each period such that the online retailers should upgrade their web system to the state of art (i.e., achieve highest available TSP) only if current TSP is below the threshold and should not upgrade otherwise. The threshold (total discounted profit) increases as customer transaction cost decreases, customer valuations for the product become higher, or customers become more (less) risk averse. Third, we find that the online retailer tends to price higher if it ignores customer strategic behavior. The cost of ignoring customer strategic behavior is substantial. The profit-loss rate of ignoring customer strategic behavior increases as customer transaction cost increases, customer valuations for the product become lower, or customers become more risk averse.

II.EXISTING SYSTEM:

We consider a stylized dynamic pricing model in which a monopolist prices a product to a Sequence of customers, who independently make purchasing decisions based on the price off erred according to a log it choice model. The parameters of the log it model are unknown to the seller, whose objective is to determine a pricing policy that minimizes the regret, which is the expected difference between the seller's revenue and the revenue of a clairvoyant seller who knows the values of the parameters in advance. When there is a single unknown parameter, we show that the T-period regret is (log T), by establishing an (log T) lower bound on the regret under an arbitrary policy, and presenting a pricing policy based on maximum likelihood estimates that achieves a matching upper bound. For the case of two unknown parameters, we prove that the optimal regret is (p T). Numerical experiments show that our policies perform well against several competing strategies.

2. III.EXISTING TECHNIQUE:

Log it choice model technique.
DISADVANTAGES:
Website issues often make consumers abandon transactions, leading to transaction failures.
Due to the transaction failure customer will get defection, causing huge losses to online retailers.Service failure due to website issues.We can't perform web upgrading to increase Transaction success probability.

3. IV.PROPOSED SYSTEM:

This system proposes an analytical model in which an online retailer sells a type of product to a group of strategic customers through the Internet. The following results were obtained. First, we characterize a threshold policy for strategic customer purchasing: There exists a unique threshold such that a customer will buy the product if his valuation is greater than the threshold and will not buy the product otherwise. We propose a multi-period model in which the online retailer has an opportunity to set price and upgrade its web system at the beginning of each period. The optimal price for each period is derived, and a threshold policy is proposed for upgrading: There exists a threshold for each period such that the online retailer may upgrade the web system to the highest available transaction success probability (TSP) if the current TSP is below the threshold and not upgrade otherwise. Sensitive analysis is conducted to investigate how the threshold and the optimal profits of the online retailer change with various model parameters.

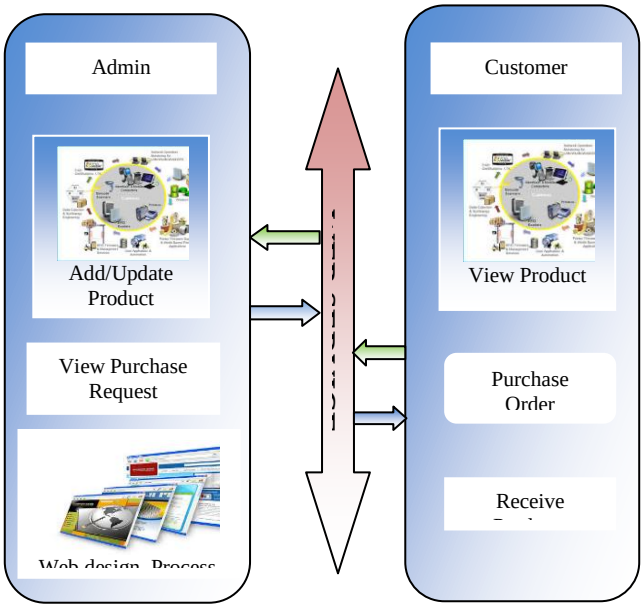
V.PROPOSED TECHNIQUE:

Threshold policy algorithm.
ADVANTAGES:

- We characterize the optimal purchasing policy for customers.
- We derive the optimal price of each period and identify the optimal policy for web system upgrading.
- The online retailer tends to price higher if it ignores customer strategic behavior.

V.ARCHITECTURE :

System architecture can comprise system components, the externally visible properties of those components, the relationships (e.g. the behavior) between them. It can provide a plan from which products can be procured, and systems developed, that will work together to implement the overall system.



VII. Conclusion

In this paper, we have considered pricing and web system upgrading problems for an online retailer who faces a group of strategic customers. Due to various website issues, there is a possibility of transaction failure when a customer purchases a product through the Internet. The strategic customers can anticipate the probability of transaction failure and decide whether to purchase the product based on their belief in TSP.

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