## Introduction

The world of internet is progressing towards making individuals’ life easier to live. It does it by means of various appliances, gadgets and online services by which an individual can either take his products to the world or get benefitted by the ones provided online by others. In the retail world it has benefitted the mankind in the following ways.

Retail Shopping portals provide customers an ability to choose their products from among 100s of options available and buy them online with hassle free home deliveries as well as ability to return some goods if not found suitable to one’s choice. Because these retail giants deal in a massive volume they can offer better prices than their competitors.

The overall customer experience and convenience is greatly improved by the online retail/FMCG segment. A customer doesn’t need to go to the shopping malls to buy his periodic needs; he can order online and get these items dispatched at his doorsteps. Moreover the retailing sites offer discounts and offers on each item thereby benefitting customer by buying them at much lower price than its MRP. All the transactions are paid through some e-payment which is considered to be a cleaner option than conventional “by cash” approach as retailer as well as customer can easily track their transactions. The most important benefit is lot of “valuable time” that a person can save which he can spend on “better things”.

Along with the “e” initiatives there are parallel initiatives such as “curbside” are also picking up well . Here a person can place an order to the third party through a mobile app/website, mentioning the name of the retail outlet/mall(s) of choice and, can receive his/her package on the way home by roadside. Growth of such initiatives clearly indicates that customer’s convenience is playing major role in it. It is saving him ample of time which he would otherwise have spent in finding the appropriate parking for his car at shopping mall as well as standing in queues on the billing counters.

The document explores the possibilities to add value to these trends and some ideas around added “convenience” to customer thereby increasing business opportunities to other segments in supply chain(retailers, manufacturers etc.) .

Can innovation help in increasing customer’s convenience further?

Can it add more predictability to the sales at much lesser investments on the sales and marketing efforts?

Can it provide maximum benefits to the manufacturing giants by minimizing the losses (those incurred in material losses, expiries of product batches, eleventh hour material purchases etc.) due to unorganized and unpredictable production cycles?

I am sure there will be many ways to handle these concerns separately for each element. But can there be a single “silver bullet” which can help bridging all of them together?

First section of the document explores the current challenges of a buyer. The competition has provided more options in front of the buyer and that too at cheaper rates. Also the online shopping experience has added to his/her pleasure. But it has also raised his expectations. So the section analyses all the questions, expectations on the buyer front.

Then it discusses the challenges in front of retailers. Though retail giants have been greatly benefitted by the “e” nnovation so far, it has posed different and bigger challenges in front of them. It will also cover their expectations in this changed era.

Finally it discusses challenges in front of manufacturing enterprises, the elements top in the supply chain. They need to manage their resources more optimally in order to serve the products with competitive prices.

## Challenges in front of Supply Chain Elements

## Buyer

Buyer is an obvious beneficiary of the “e”nnovation in online retail segment, as the whole concept has been centered around increasing the shopping experience and convenience of a buyer thereby increasing overall customer base and sustain the business in the hard hitting competition.

Retail giants like Amazon have provided all variety of products which a buyer can purchase online, at a much competitive price and the goods can be received at his doorsteps.

Despite of these options available, the shopping trends tell different story. Though some segment of the customer base has started benefitting from the online shopping of FMCG goods, still majority of it is still relying of shopping malls for routine items such as grocery. Online shopping is preferred mainly for consumer electronics items such as mobile, camera, laptop and fashion apparels and clothing etc.

For FMCG products initiatives such as “CURBSIDE” are picking up well. This is a hybrid shopping experience where customer can place his/her order on his phone but then picks up the actual package on the way home, from the curbside counters. Why is online shopping not effective here?

Usually customers do not get to plan their grocery/daily needs well in advance; OR it is appropriate to say that they do not have an avenue to plan their periodic grocery needs. So for urgent needs it is not useful to place an order online as it will take few days to deliver the order. Also some of their needs are perishable items (milk, fruits, and vegetables) which are needed fresh and they cannot rely on online shopping/delayed delivery for them. So whenever they need any grocery items, they either place an order on mobile to a curbside agency and receive them on the way, or simply go to a nearby shopping mall, collect these items themselves. Other possible/additional reason of in-person shopping is to get more discounts/benefits on the overall purchase amount. Example: Some customers prefer to shop on less rush hours/days where they are expected to rip more discounts/benefits. But do they really get benefitted adequately on the overall price?

Typically when customer buys grocery items, he gets good discounts on some of the items, but need to buy remaining items at MRP. As customers view a MRP of a product as their reference threshold to count benefits, they get happy even if they get few percent discounts on only few of the items from their grocery list. As the shopping malls keep the discounts rotating among the available products every day, there is a very less likelihood that a single customer will get benefits on all items that he/she is purchasing at a time. So they pay less for few items and compensate benefits on other items where they pay at MRP. Why I say that they compensate is because the retail giants purchase their FMCG products at much lesser price than MRP due to large volume turnover. So they can afford to provide discount on (almost) all products, but prefer to offer on few items at a time.

Unlike fashion apparels or electronics items which are not so periodically purchased, the FMCG items are periodically and very frequently needed by every household. Also the brands preferences for each product for every customer are also more or less constant. They why does a customer need to order them again and again(every week/month), or get into the hassles of going to a shopping mall, standing in the billing lines for hours again and again?

Also if he is a periodic and loyal customer of specific brands and a shop, should he not be respected/ benefitted for his loyalties and the volume of goods that he is purchasing from a shop per year? Also why he should be penalized for being stranded in billing queues for long time every week/month? How much of their time would be saved if the items what he dreams of, will be respectfully remembered and gently delivered at a desired frequency. Furthermore if every shopping item that he is buying will yield great discounts(not only few of them) and the yields grow bigger based on his net worth spends as well as duration of his relationship and so on, will he not be happier and happier and hence spend more and more?

## Retailer

The Retailers have a tougher job of inventory management due to varying customer density as well as varying needs for each product across geographies, periods and demography. For example customer base in cities prefer different product brands than those in small towns. Moreover due to difference in usage patterns the consumption is different. Furthermore demand for some products increases during festive seasons (Diwali, Christmas). New product brands and varieties keep coming in market where the producer offer lucrative profit margins, as the demand for these items is not known yet and they need to be established in the market.

Due to so many variables pose challenge for them while managing the inventory of goods with them.

Different online retailers try different options to circumvent around this problem of variable/unpredictable inventory management. Some may prefer to manage their own stock of inventory at different warehouse locations and consume the orders through them using some shortest path routing strategies. Some try out “Just In Time” strategy where keep minimum stock with them and back order the supplier when they receive handful of orders from customers.

In the first approach there is a risk of “Out of Stock” or “Excess Stock” situations as well as possible expiries for some product stocks. Retailers offer “Sale” seasons (end of season sale, monsoon sale etc.) where they clear such excess stock by offering it at heavy discounted prices. But in case of “Out Of Stock” situations, a considerable delay can hamper end customers as retailers will first need to procure these items from suppliers.

These challenges are much bigger in case of online retailers due to their wider reach. They use sophisticated analytics tools to predict the consumption based on historical trends.

Other challenge is on the pricing of products. Online retail concept is primarily centered around turnover of huge volume of goods. So even if a single penny is earned on a unit as profit, it yields millions at the end of a day. This is how they can better negotiate with suppliers on purchase prices and pass on some percent of the gain to customers in the form of discounts and offers. But how much to offer on a product/brand is determined by demand vs supply ratio for that product. The “Hot Favorite” brands usually offer less margin to the seller and hence may yield negligible discounts for the customer, whereas new arrivals offer heavy discounts and offers due the element of unpredictability in them being successful in the market.

Retailers try to rotate offers on different products so that yield on few products may get compensated by the discounts (losses) on other products and ultimately earn desired profits. So on any day, at any moment if you buy few items from a mall/online store you get discounts/offers on few of them whereas pay MRP for the remaining ones. Buyer is viewing MRP as a reference price for every product. so getting discount on few items may also make him happy.

## Pricing Strategies

Strategies for determining the price of a product to be offered to a customer at the time of subscription is one of the unique sales proposition of the affiance platform. This is unique challenge because this platform is not offering instantaneous shopping scenario where the quoted price remains true only for that instance. When you are proposing price of a product to a customer on a given date, it should remain constant for that customer throughout the subscription period. This is a big challenge as there are so many variations in the price determining factors as well as there can be so many predictions regarding the future changes in these parameters that committing a unit price for a period for the duration of six months/one year is an “interesting challenge” to have.

The quoted price should be lower that MRP as much as possible, as it will motivate the customer to buy that product online.

## Base pricing determination based on targets:

The price should meet expected profit targets for the seller from that product. So it should get translated into the definition “A product purchased by a seller from supplier at a per unit price (PP) should be sold total units (V) at a quoted price(QP) for a given period(T) so as to secure the expected profit margin percentage(P) for the seller”.

Example: A Seller has purchased a Toothpaste product at Rs. 72 per unit (from a supplier) which has an MRP of Rs. 100. So In order to secure 15% for himself the seller should sale it to Rs. 82.8.

In order to convert it into expected profit amount per period (month, year) it is important to take volume of sale into consideration. So If seller sales 50,000 units of the toothpaste per month that he will make profit of (82.8-72.0)\*50000= Rs. 5, 40,000

Does this profit based flat calculation for price determination suffice in real world? Obviously not. Because the negative scenarios such as sale not meeting targets have not been taken into consideration. Moreover changes in the base (purchase) price, effect of inflation, increased taxes, supply to demand ratio for a product too have not been considered. But the flat calculation can be considered as a basis for effective price calculation.

## Pricing variations based on target sale achievement variance

The expectation above is applicable to instant sales too, but in case of subscription this is not enough. There are so many variables in subscription case which will also impact the calculation of pricing. What if the target sale per period is not achieved? Will the quoted price be same? Obviously not. The losses incurred in selling a product for period should be recovered in the next period by adjusting unit price.

Example: In order to make a target profit of Rs. 5,40,000 a seller is expected to sale 50,000 units of a toothpaste product at 82.8. But when he realizes that the expected target sale volume is not met, he needs to revise the quote in order to recover losses in earlier month. So if he is able to sale only 40,000 units (as against targeted volume of 50,000) in a month he has made Rs. 4,32000 profit. So he is short of Rs. 1,08,000 of target profit for that month. So he should increase the per unit price of toothpaste to say Rs. 85(some random number, just for the sake of explanation) so that he will make Rs. 5,40,000 profit for next month as well as recover Rs. 1,08,000 profit deficit (so total gain is 5,40,000 + 1,08,0000=6,48,000 for next month).

The unit period over which the price should be adjusted can be made more granular. Instead of “Per Month” target achievement calculation if we make “per day” calculation, the unit price variation will be more precise as well variance can be kept within limits. After all customer will not trust you if you start make huge price variances over a period.

The same is applicable even if the sale exceeds target figures. So instead of the target sale of 50,000 units if it has reached to 60,000, then offered price for next month will come down from the mean threshold value of Rs. 82.8 per unit to Rs.78.5 per unit( because next month seller can afford to sale 10,000 units lesser than the mean threshold target of 50,000. But why would seller think of selling lesser? In case of subscriptions, now he already has registered subscriptions demand of 60,000 toothpastes. And there is a likelihood of more demand by means of new subscriptions in next month. So the increased volume will yield him additional profits even if he lowers the price.

## Pricing variations based on increase in purchase Price

## Purpose of Affiance Subscription Platform

## Affiance Platform architecture

## Commons Domain

## Item registration Domain

## Subscriber Domain

## Pricing Domain

## Benefits Domain

## Integration Domain

## Analytics domain

## Administration Console

## Customizations and Configurations needs from Shopping Portal side

## Conclusion