# 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 shopping world too, the benefits are realized by society, where not only customers are happy buying their needs online at competitive prices but merchants also are able to reach to very large volume of customers and hence able to register large profits through big volume turnover.

Retail shopping portals provide customers an ability to choose their products from among thousands of options available and buy them online with hassle free home deliveries. They also provide ability to return some goods if not found suitable to one’s choice. Retail giants are offering lucrative discounts and cash back options in order to be ahead of their competitors. Merchants can do that because they have reached to the remotest customer in the region who carries a smartphone, which makes them deal with huge volume of goods. So gaining even a smallest profit per unit of sale enables them to earn huge profit figures. Sharing some portion of their gains with customers helps increasing the customer base as well as customer affinity further and this cycle continues.

Along with these “e” initiatives there are parallel initiatives such as “curbside” are also picking up well. A person can place an order to the third party agency through their 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 “curbside” outlet. He saves significant time in finding closer parking for his car, spending few hours together in the mall as well as in the billing line every day/week/month and still have control on what is he buying and from where he wishes to buy.

The most important benefit of both these initiatives is, “lot of valuable time” that a person can save which he can spend on “better things”.

Growth of such initiatives clearly indicates that customer’s convenience is playing major role in growth of e initiative as well as hybrid initiative. The notion of “Time is money” for a customer is really playing very well for the merchants. Any innovations which will add value to the customer convenience are going to be the key to the profound success in retail business.

It is giving rise to tougher competitions. Though competitions are posing bigger challenges in front of merchants, they are benefitting the customers as they are getting more options to choose from. They can carefully compare the prices being offered by different competitors and choose their supplier based on the lowest price offers for the desired brands.

Merchants are making all efforts, to get their existing customers remain associated with them for any of their shopping needs. But due to price wars and competitive quality of service customers may not be in a position to appreciate the affinity with a single merchant.

## Online selling Trends

Shopping portals are primarily of two kinds: the ones which are launched by merchants themselves and responsible for attracting and retaining customer base in order to remain in the market. In this case the extent to which benefits can be provided are based on how that merchant is financially doing and what is his appetite to face the brutal price competition.

The second category of portals is the ones which are launched by some third party IT organizations (example: Amazon, Alibaba) and provide online platform for merchants across the region to promote the sale of their goods using it. In this case the benefits to customers are provided by the merchants who are hosting their products on the online platform and the owner of hosting platform earn their money by charging some commission from merchants for enabling their business on the hosted platform.

The self-hosted portals, incur considerable additional expenses as they have to manage the IT services behind the online portal, in addition to their actual business. But they have a better opportunity to create their brand proposition, as they are known by their portal name. Also they are free to apply/change their shopping/pricing/discounting rules.

Third party portals on the other hand enable even smaller merchants to take their products to the masses and thus help upcoming businesses/product/services to grow faster using their infrastructure. They, on the other hand are restricted on the pricing/discounting rules. Also their own brand name may get shadowed by the brand name of the third party portal on which they are running the business. They can run only those shopping schemes which are provided by hosting platform.

Materialization of a customer to a merchant is the result of

* Lot of advertisements/promotional campaigns to establish themselves in the market as a brand
* Continuous efforts of attracting new customers and engaging earlier customers by offering competitive prices,
* Collaboration with payment instruments( credit card providers, PayPal, apple pay etc.) to provide attractive payment options and
* Assured quality of products/services being offered.
* Customer’s earlier buying experience with the same merchant.

Among the above mentioned contributors of successful business, the last contributor is a result of all earlier contributors.; i.e. Unless customer gets good quality service from a ‘well known’ merchant ,at a discounted price he may not be fully satisfied with the merchant.

In order to get a customer into habit of buying products always form same merchant, gathering of his multiple experiences with same merchant is the key to the success. Merchants are spending hell lot of money just for this purpose.

A concrete step towards building multiple good experiences with a merchant is to sell good quality products/services so as to enable customer consider same merchant when same products/services are needed. Consider a portal selling vegetables and fruits (bigbasket.com). If customer gets good quality fresh vegetables and fruits from a merchant he would surely go back to same merchant next time. This is how long term affiliation can be built between merchant and his customers.

But selling good quality products alone may not ensure customers’ long term association as

* Multiple merchants may be selling good quality products.
* Branded products have established quality standards. So customer may not see any advantage of buying them from a specific merchant instead of other.

## Buying Trends

When we consider patterns in customer buying of their needs, primarily two buying trends emerge out based on their need patterns.

### Instantaneous Buying

Few products are required by the customers on need basis and nature of need is spontaneous, triggered by some incident or occasion. Customer buys a product as a response to this trigger. Example: Customer buying a new headphone when his earlier one breaks down OR he wishes to upgrade to a latest one OR he/she wishes to gift it to someone.

Customer buys a new mobile handset as a result of breakdown of earlier one OR he/she wishes to upgrade to a newer version with more speed and capabilities.

Customer buys furniture when he is fed up of using the existing one OR it is broken OR it does not match the new colour scheme/theme which he/she has adopted for his house OR when he buys a new house.

Due to spontaneity of need and its trigger/event based nature, periodicity of buying such products is not fixed. Usually products purchased in instantaneous buying patterns last longer/used for relatively longer period. Next time when buying the product under same category, customer’s choice may have changed due to changing trends. Example: A customer who had bought a Nokia Lumia phone (Windows based) may want to opt for an Android phone, as it is currently more popular and then try for some other brand. Similar behaviour may be observed while buying fashion apparels (Jeans, trousers etc.).

Similar to periodicity and choice customer’s association with merchant may also change. Customer may not buy the product from the same merchant every time. He/she will first surf available product catalogues provided by different merchants, compare prices and then decide from which merchant the product should be purchased. For non-branded/trivial products where price variations are huge, lowest offered price is usually most significant determination factor.

Thus customer’s association with merchant for buying a product is more “instantaneous” in nature. Customer approaches desired merchant (either physically or on online portal) makes his purchase and walks away. There is no commitment from either side that purchase of same/related/similar product next time will be done by that customer from the same merchant.

As customer’s affinity cannot be ensured in sale of these type of products, the main revenue/profit determination factor is the volume of sale of these items. Once a customer purchases a product from the merchant, instead of tracking the same customer for probability of him/her coming back to same merchant next time, the merchant focuses on acquiring new customer so that overall volume turnover of sale will increase(at least remains constant). Though by offering lucrative discounts/cash back offers as well as ensuring sale of good quality products, merchants try to create an opportunity for gaining the same customers back repeatedly, there is no science by which the same can be assured and predicted.

Such an “Instantaneous” nature of business poses multiple challenges in front of merchants.

The first and foremost challenge in front of any merchant is to keep the business in a predictable state. Merely increasing customer base for some period does not suffice the need as such as growth may be unpredictable/short lived. A merchant is considered to be doing bad if a customer who has purchased some products from him in past does not turn up again to the same merchant. So even if merchant’s business is growing due to acquisition of new customers, its stability will always be a question mark if at least some percent of these customer do not come back to him.

Second challenge is associated with keeping control on offered prices by controlling expenses and waste. Merely making efforts to gain new customers does not enable merchant build precise business forecasts, because probable new customers are in thin air and it is impossible to predict if they will really materialize. There may be even tougher challenges associated with demand due to varying customer density as well as varying needs from new coming customers 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.

Unpredictable demands adversely impact procurement of goods, inventory management, operating expenses and may lead to either customer dissatisfaction due to “out of stock” kind of situations or lot of wastage due to expiries of batches of goods. Discounted prices are determined mostly based on certain demand predictions and assuming assured revenue/profits. Such an unpredictability shatters these assumptions and ultimately they result into vast underperforming of business on revenue and profit fronts. Unpredictable demand also significantly impacts operating expense per unit of goods, as utilization of resources such storage space, electricity charges, expenses on operating staff, expenses related to delivery of goods as part of supply chain etc. are impossible to optimize in case of unpredictable demands.

Different merchants try different options to circumvent around this problem of variable/unpredictable demand. Some may prefer to manage their own stock of inventory using some statistical analysis of historical demand information. Some try out “Just In Time” strategy where they collaborate with regional/local/on site retailers and fulfil local orders through them. In turn the local retailers pay them commission for awarding business.

In first approach the ‘per item’ net profit is inefficient due to inability to control wastages, operating expenses and product pricing.

In second approach merchants rely on the local retailers for inventories being managed by them, quality of the goods as well as services provided by them. They in turn gain much less gain as compared to first approach because they themselves are not dealing with suppliers in wholesale but rather selling items which are purchased by their regional counterparts. As the regional purchases are negligible in volume as volume is sufficient just to take care of regional needs. Hence the purchase price per unit of goods is much higher as compared to first approach. Benefit of this approach is saving of inventory cost, transportation as well as zero accountability of wastages.

These challenges are much bigger due to their wider reach. They use sophisticated analytics tools to predict the consumption based on historical trends. But the percentage of assurance in this predictions is close to 0% because nature of business is instantaneous and there is no guarantee that a customer once made purchase from a merchant will come back again to the same merchant.

Another challenge is to determine the right price of every product being sold. Due to turnover of huge volume of goods, even if a single penny is earned on a unit as profit, it yields millions at the end of a day. The same is inversely true if single penny per unit is lost.

Price of any product is mainly driven by its demand (against all its substitutes) as well as many other factors such as

* Cost incurred (in addition to purchase price of a product) to sell product in market (fixed + variable cost)
* Price of competitor products
* Price offered by competitor merchants.
* Geographic +demographic aspect determining purchasing power and perceptions of buyer population

Considering “demand” as the primary factor driving offer price, see the following problem for illustration.

If product X has breakeven price (purchase price +costs per unit) of 50 Rs. and MRP as 110 Rs., in order to get profit of 100,000 Rs. On sale of X, at what price it should be sold?

In order to solve one should know the “demand forecast” for product X. If expected demand is 2000 units, then offered price should be 100 Rs. so that.

2000\*100 – 2000\*50 = 2000\*50 = 100000 Rs.

Whereas if expected demand is 4000 then price should be reduced to 75 Rs.

4000\*75 – 4000\*50=4000\*25=100000 Rs.

Now if the prediction system predicts a demand of 4000 Rs., based on which unit price is determined as 75 Rs. and actual sale is 3000 units then profit is reduced to 75000 Rs (which is 25% less than forecasted profit)

3000\*75 -3000\*50=3000\*25=75000 Rs.

If the market is very volatile, and merchants are unable to predict demand, they face real challenges in determining prices. The price per unit that they have offered(with some discounts) , anticipating certain sales growth in coming months may turn loss making as the predicated growth did not happen but the cost being constant.

In case of shopping malls they offer the prices based on the geography where they are located. In areas having majority of wealthy people, charging too low price may negatively impact sale as buyers can start suspecting on the quality of products, which are sold at cheaper prices. On the contrary if prices with heavy discounts are not offered in the areas where less wealthy people are living, it may negatively impact the sale.

Online shopping sites may not have this luxury of charging different prices in different geographies because the same site is accessible from all locations.

When a competitor merchant drops price of a product, others have to introspect offer price of the same product, else there is a likelihood of lowest price offering merchant will pull away customers from all.

When cost of substitute of a product (competitor products) goes up it may positively impact it’s demand. Thus substitute price also plays a major role in price determination.

All the factors discussed above contribute to determination of price being offered to customers. As and when these factors keep changing the offered price keep moving between breakeven price and MRP.

In reality it is extremely difficult to predict customer behaviour in volatile market situation. His buying decisions are impacted by inflation, change of taste, offers by competitors, performance of substitute products etc. In instantaneous world it is extremely difficult to keep offering prices which can keep customers bound to the same merchants.

### Periodic Buying

If one categorizes the range of retail products being consumed by an average customer it can be realized that range of few products is repeatedly required by customers and their usage frequency is predictable. Example: toothpaste is required every month (numbers depending on family size), milk is required daily, washing and body soaps are required in some quantity every month, medicines are required at a prescribed time periods.

Needless to say, their consumption pattern and hence buying pattern is almost predictable. Each product may have its own consumption pattern.

Example: In my family I consume two Miswak toothpastes, one 200 gm Taj Mahal tea pack,3 packs(10 in each) of Huggies diapers for my baby,4 lux soaps, half kg of rice, half kg of lentil, two body sprays,2 bottles of Dove shampoo,1 Kg sugar,…. Etc.

Other characteristic of periodically needed products is that brand preferences per person/family are usually fixed and rarely change OR they change over a relatively longer duration. Typically people do less experiments with food items, health safety related products and hence their preferences vary rarely.

If you apply the same rule for health associated products such as protein drinks/health supplements, medicines, medicated oils, skin creams, hair dye and certain range of health related products such as diapers you will see that it follows exact same behaviour as described above.

In retail/medicine world there is more likelihood and probability of buying a package of periodic products from the same merchant and at fixed intervals. Variations is each of their prices may not make a significant difference on buyer’s pocket and hence people do less scrutiny while choosing a merchant for buying these type of products. Of course It should not make merchant take his/her customers granted for an assured business. They should have policies in place which should influence customers to buy more and more items from them and for longer duration.

Thus there is a more likelihood of retaining customer affinity in case of products exhibiting periodic buying patterns. So in addition to increasing volume of sale by acquiring new customers merchant can take efforts to retain existing customers in such category of products.

If you introspect range of all products that you are using in your daily life and list them down you will realize that it has a significant proportion of the products which have been periodically bought by you.

If you compare the impact of demand predictions in managing inventory, operating expense decisions thereby determining right offer price per unit in products exhibiting periodic buying pattern, you will realize that the percentage of accuracy can go up to 70% as compared to products exhibiting random buying pattern and random selection of merchants. This is because a customer buying two Colgate toothpaste a month will continue buying the same volume ever month and probably buy them from same customer. In other words you can say that existing periodic buyer may remain associated with same products and with same merchants for much longer duration. Hence their future demand of those products from the same merchant is not just a prediction but it is real.

The scope of this analysis is to focus on the trading of products which exhibit periodic buying pattern and study how their business by means of subscription not only benefits the merchants but also helps maximize gains of the customers.

# Subscription space

Sustained (not just increasing) customer base is the only key to success of prosperous business. As we have seen above in case of periodic buying needs such opportunities (to establish longer term relationships with customers) are present. The opportunities are not obvious just because these products are periodically needed by customers with a relatively fixed periodicity.

Since customer has so many options to buy his periodic needs, if he does not have any specific incentive(s) to buy them from the same merchant he may not commit an assured long term as well as long lasting relationship with a merchant. A systematic engagement with every customer where customer gets more & more benefitted by buying more volume of goods and by buying for longer duration from the same merchant, is essential in ensuring predictable and sustainable business for the merchant.

The “Subscription” concept tries to associate the expectations of customers to obtain their “periodic” needs with maximum benefits, with merchants who wish to retain their existing customer base for as long duration as possible (in addition to gaining new customers) in order to ensure a sustainable and prospering business.

Concept of subscription is not new. It has been popular in publications business since long time. In IT world it has been practiced for SAAS (Software as a Service) business too. There are good evaluation metrics developed for SAAS to measure the effectiveness of the SAAS model. In telecom business, too different tariff plans are based on subscription model.

In simple understanding a ‘subscriber’ is the one who subscribes (registers for periodic receipts) for a set of products (articles and/or magazines in case of publications) or services (software licenses in case of SAAS or mobile plans in case of telecom business) by getting into long term agreement with supplier and keep on receiving these products/services periodically at a predefined interval. Periodic deliveries of desired goods/services save subscriber’s efforts of procuring them newly, every time.

In publications as well as SAAS business models the market and cost vulnerabilities are limited and predictable as compared to retail business, mainly the one which is related to everyone’s daily needs.

Subscription to products in other periodic selling business is not so popular/ practiced. It may be because in volatile market situations and due to instability of product prices there is no business model available which can ensure sustainable business along with assured(and growing) profits for both stakeholders (subscriber and merchant).

We will see the benefits of a true subscription business model and consider them objectives to define a subscription business model which can be applied to periodic selling retail market as well as other similar markets( such as medicines and health products).

Then we will work on each of these objective and define business rules and processes for the business to abide by them. If all of these rules and processes are strictly adhered to by the practitioners they will ensure a sustainable and prosperous business proposition for them.

## Long term association

The basis and intent of subscription concept itself is to establish a long term association of customer with a merchant, where he/she agrees to receive a fixed set of selected products repeatedly at desired intervals. That is where a customer is termed as ‘Subscriber’.

The first obvious advantage for a subscriber of ‘subscribing’ is ‘saving of lot of time and energy on buying his periodic repeatable needs’. An order needs to be placed by customer just once for a fixed length of period, mentioning the number and periodicity of every item being subscribed. Packages with appropriate goods are delivered to his doorsteps on completion of every delivery period. No periodic visits to malls, no standing in long billing queues, not even periodic ordering online thereby paying different prices for the same product at different times; Order once and you are done for subscription period. Let’s term it as the “Convenience” aspect of subscription model. It is one of the attracting force for a customer to turn into a subscriber. A Merchant who offers a subscription business model thereby allowing a subscriber to register for set of products at respective delivery frequencies and delivering branded as well as good quality products precisely at the defined frequencies to the customer’s doorsteps is fulfilling first business rule of subscription business model.

But merely a “convenience” may not ensure long stream of subscribers getting associated with merchant for longer term. A subscriber may wish to get into a longer term agreement with a merchant by subscribing to set of products also because he/she would expect benefits for his/her “loyalty’ in addition to the “Convenience” aspect described above.

A successful merchant who arranges a business proposition so as to attract such longer term agreements with his customers then have stable and predictable business as he almost precisely knows the demand of each of the products being sold and then can focus his efforts on minimizing wastage as well as negotiating better rates from his suppliers.

## Multi-Dimensional Business Model

Conventional Instantaneous business measures growth in terms of volume of sale. Since it does offers a facility to retain existing customer base, it does not track the duration and volume of association with each customer and merely measures /predicts growth based on actual volume of sale against predicted demand and per unit gain aggregated into total gain.

Subscription business is measured in terms of volume of incoming (new) customers, duration of merchants association (subscription) with each of them, their purchase volumes (basket sizes), rate of customers churning, and thereby overall revenue, gross and net profit. It means different business proposition is needed in case of subscription business as the intent is to attract new subscribers, retain existing subscriber as long as you can, attract them to buy higher volume of goods per period, reduce churning as indicates subscriber dissatisfaction and measure the success of business not only in terms of attracting high volume of subscribers but also in terms of longer average retention rate and minimum possible retention rate.

Since average customer in subscription business typically subscribes for more than one product as well as for more than one time, it is appropriate to forecast and measure the business in terms of subscriptions instead of customers. This is because

* Customer may subscribe to more than one product and for definite periodicity and duration.
* The same customer subscription repeatedly adds to revenue/profit for the given subscription period.
* Customer may remain associated with merchant but can change his total subscriptions one or more times during subscription period resulting into different revenue for his subscriptions.

Here the tracking is required not only on how much increase in customer base, but also on how long an average subscriber remains associated with merchant. This is because sustainability of business is the key to success for subscription business. If large volume of new subscribers are getting added to merchant’s portfolio, but large volume of subscribers are getting churned out in between their subscription period, then something is going wrong in the business and merchant needs to introspect and correct wherever required.

Also if subscribers are changing their product subscriptions multiple times (replacing products, removing products from baskets) during subscription period, it may negatively impact forecasting and management of resources.

# Expectations from Subscription Business Model

Now let’s imagine the kind of benefits that customers will be seeking if they wish to get into a periodic long term agreement with a merchant.

## Quality

Regardless of nature of business (periodic or instantaneous) quality of purchased goods has always been and will always be the first criteria for any customer. In case of branded products this is not needed to be handled by merchants as customers are already associated with some brands or the other. This may be an issue for non-branded products such as fruits and vegetables.

So merchant has to ensure that whatever products (branded or no branded) products he/she is offering they should be of good quality. Many new/upcoming products get launched in market with highly competent prices as well as lucrative margins for merchants. Hence merchant as well as subscribers may get tempted to offer them/buy them. But these are of inferior quality subscribers will not blame their own choices but will blame them merchant who offers them.

## Convenience

Lot of convenience, by buying things online has been one of the main motivation factors for customers.

* Customers will be happy buying their periodic needs online through a self-intuitive user interface, so that they will save lot of their time going to market for shopping of these items, standing in long billing queues etc.
* Customers will want to get the purchased goods to be delivered at their doorsteps, mostly on precise time. These are periodic needs; so they may not wait for the goods to be delivered later than the day when they need these products.
* If customers are buying multiple products form a merchant, they may not need all of them at the same interval as each of their consumption rate may be different. Example: customer may want two toothpastes per month but need toothbrushes to be delivered every four months.

So they will need different items to be delivered to them, closer to their need time.

## Price Benefits

* For periodical needs such as grocery items or medicines, customers will prefer to subscriber for them if these are offered at some discounted prices. This is how a subscriber will maximize his/her gain as the same item will be shipped to him periodically for longer duration with discounted price.
* Customer happiness may ruin away if merchants start charging considerable shipping charges on the delivery packages. In case the shipping charge grows proportional to package size/weight it may further add to customer dissatisfaction. The sole purpose of making a subscriber subscribe for more and more items will ruin away if shipping charges increase proportional to package size. They may find it more appropriate to buy these items from a nearby mall (although it is less convenient).It is for the merchant to manage operating expenses in such as manner their effect should not be visible to the subscribers through some sort of shipping charges.
* The most difficult problem to handle in case of subscription model is the product price to charge to a subscriber during whole subscription period. Should subscriber pay the same price for a product throughout subscription contract? If price of a product increases, what will be its impact on existing subscriptions? As far as a subscriber is concerned he/she would not want to see multiple prices for the same product during subscription period. He/she may feel being cheated as some price was offered for a product, due to which he/she was tempted to subscribe to it and later the price was increased. A merchant should have a mechanism to give a feel of stable prices to a subscription, though price of the same product may vary across subscriptions. We will clarify it while detailing out on product pricing categories and pricing mechanisms.

## Value added benefits

* Package level benefits: Some segment of customer base perceives different products at lesser prices than their offered (discounted) prices. Such price sensitive customers may compare offered prices of different branded products at different shopping malls/portals and selectively buy their needs from different shopping malls/portals so as to maximize their overall benefit. Also their choice of merchants keep on changing based on who is providing maximum benefits for their needed product at every time.

If customers are provided ‘package’ level benefit as an alternative to/in addition to product level benefits, they will be tempted to add more items in their package(because more the package amount more is the benefit),thereby buying all their needs from same merchant. Also the more time they keep buying from the same merchant more will be their savings.

* More for More: When a customer buys a goods worth ‘X’ amount and other customer buys worth 2X amount, the later should be appraised by passing on some value added benefits, as he/she is contributing more to merchant’s overall revenue and profit. This is how second customer will get a feeling of added gain and it will add to his satisfaction level.

## Rewards for loyalty

If a customer is periodically buying his needs from the same merchant, is he being rewarded for his long term affiliation with that merchant?

Looking little deeper in this kind of relationship, a customer is getting into long term agreement with the merchant where he promises to buy certain (perhaps same) set of products periodically for the agreement duration.

Customer’s loyalty with a merchant should be rewarded in some form or the other. It can be in the form of additional discounts or cash back schemes or loyalty/reward points etc. Thus this loyalty makes customer win more benefits on top of product level and volume based benefits.

Merchant is automatically wining a long term relationship with a customer so he can focus more on winning new customers. Also the business forecasts are more accurate and resources can be planned more precisely as compared to the instantaneous business. It also increases merchant’s ability to negotiate better with suppliers based on this assured future business.

There should be strategies in place which will compute the loyalty units for every customer based on duration of their agreement as well as number of renewals of agreements. They should then be converted in the form of benefits such as redemption points, added discounts, gifts etc.

# Subscription – A Multi-layered Benefits Model

## Objectives

## Lifecycle

## Domains

# Subscriber/Subscription

## Lifecycle

## Interactions

# Product

## Types of Products

## Lifecycle

## Interactions

# Benefits

## Lifecycle

## Interactions

# Payments

## Modes of Payment

## Lifecycle

## Interactions

# Business Account

## Provision Types

## Lifecycle

## Interaction

# Business Activity Monitoring

# Processing Support