

E-Commerce Cart Abandonment: Exploring Consumer Behavior's and Reasons for Cart Abandonment

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Abstract:- As an important part of today's economic status, online market plays an important role in the fast growth of the Internet economy over the last decade. The popularity of the online markets gave way for the research community members to explore, analyse, investigate and finally find some solution, to motivate the online shoppers to complete purchasing stage. The e-commerce shopping cart is used to analyse the online behaviour of the consumers in placing the items in the online cart. This paper is about to study the reasons for abandoning shopping cart before completing the purchasing stage and giving solutions for those reasons, based upon the survey results collected from three different sources, online, social media and hard copy. The survey has been done on 9 different reasons to abandon shopping cart on two different age group people, 18 to 25 age group and 25 to 35 age group.

Keywords— E-Commerce, abandonment rate, consumer behaviour

I. INTRODUCTION

E-commerce markets have played important role in the fast growth of the internet economy over last 6 to 8 years. Without any constraints, people can purchase a variety of items from online markets anytime and anywhere. According to IBEF(India Brand Equity Foundation) India is the fastest growth for the E-commerce sector. Revenue from the sector is expected to increase from US\$39 billion in 2017 to US\$ 120 billion by 2020, growing at an annual rate of 51 percent, the highest in the world. The huge popularity of online market has attracted the research community to investigate various aspects of online markets including consumer behaviors, usage patterns, various online shopping sites, online shopping cart abandonment, etc.

This paper move forward by analyzing the actual reason for cart abandonment; what is Cart Abandonment? Shopping cart abandonment is when a potential customer starts a checkout process for online order but drops out of the process before completing the purchase. Any item that enters the shopping cart but never makes it through the transaction is considered to be "abandoned" by the shopper. Shopping cart abandonment is an important aspect of the online shopping process that retailers pay careful attention to.

$$\text{Shopping cart abandonment rate} = \frac{\text{total no. of completed transactions}}{\text{total no. of transactions that were initiated}}$$

This rate will identify what percentage of a site's users signal purchase intent by adding an item to the cart, but don't complete the purchase.

The shopping cart abandonment rate is an important metric for e-commerce sites to keep track, because a high abandonment rate could signal a poor user experience or broken sales funnel. Reducing shopping cart abandonment leads directly to more sales and revenue, so optimizing the checkout flow a core area of focus for many online retailers. According to some research in India, shopping cart abandonment rates hover around 51%. However, that is one of the more conservative numbers. While 34% of the e-commerce websites deploy a Cart Abandonment Program while 66% have still not considered this route to earn back the lost revenue. If you do e-commerce on any level, shopping cart abandonment is draining your profits. Hence, further analysis of cart abandonment is vital for the e-commerce companies.

II. OBJECTIVE

As an e-commerce professional. I spend a lot of time and resources getting into the minds of shoppers. What makes them tick? What makes them buy? What makes them rave over products in one moment, then cuss a blue streak on the product reviews? What makes them tell their friends "it's awesome" or "it sucks?" What do they look at on the screen? Why? What is my overarching motivation in such eye-straining, brain stretching study? Quite simple, more conversations.

This research proposes the few reasons for cart abandonment based on survey and other social media sources.

III. RELATED WORK

The impact of different types of service recovery on customers' perceptions of justice, post-recovery satisfaction, and word-of-mouth (WOM) intentions is examined [1] on the basis of effective customer service. The prediction model [2] is used to infer whether the consumer will purchase the item or not. The customer satisfaction details [3] with respect to complete online shopping process is analysed based on security provide by the e-commerce owners. Customer's perspective on online shopping [4] discusses about the emotions based on twenty scenarios. Results of [4] provide a valuable reference for operators and managers of online shopping website. Adopting rate of online shopping in [5] discusses about fall in e-commerce in Asian countries than in western countries. It depends on factors like, consumer attitudes towards online transaction processing systems, the security and privacy of consumer personal information within merchant systems, and trust in reliability of online vendors.

The study in [3] examines the unexplored area of consumer behavior at the final stages of transaction culmination and hence is an initial step towards filling that gap.

Data Analysis And Results

The data analysis has been made on two different age group people and over all survey results are shown in the below table.

Reasons for cart abandonment	Percentage
Unexpected shipping cost	44.74%
Pay on delivery option not available for all the products	38.16%
Product reviews not found or less reviews	35.53%
High product price compared to other e-commerce companies	34.21%
Tentative buying	27.63%
Frequent cost changing of the selected product	25.00%
Concern about payment security	22.37%
Delivery is too slow	17.11%
Upfront payment calculation could not found	5.26%
Product reviews not found or less reviews	35.53%

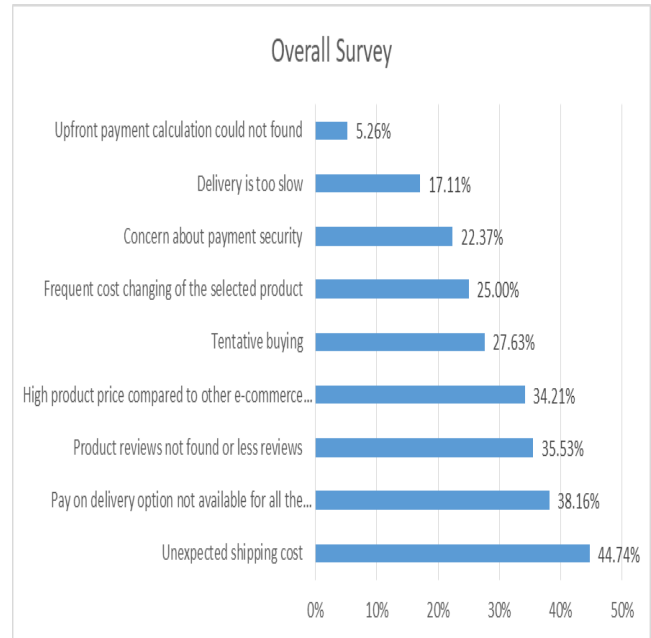


Figure 2: Overall survey results in bar graph

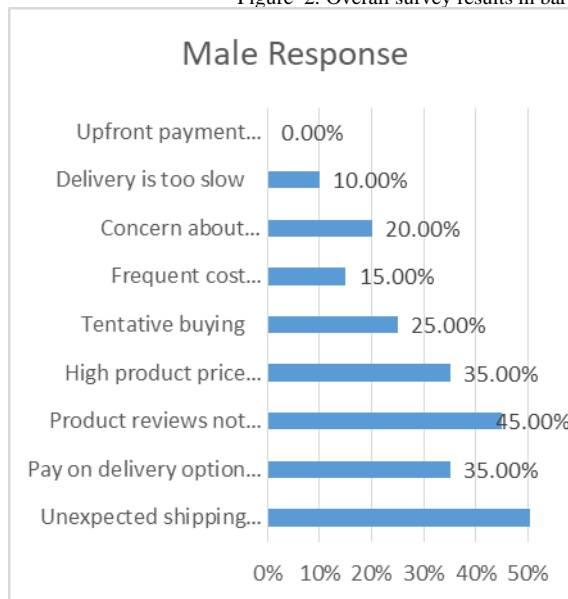
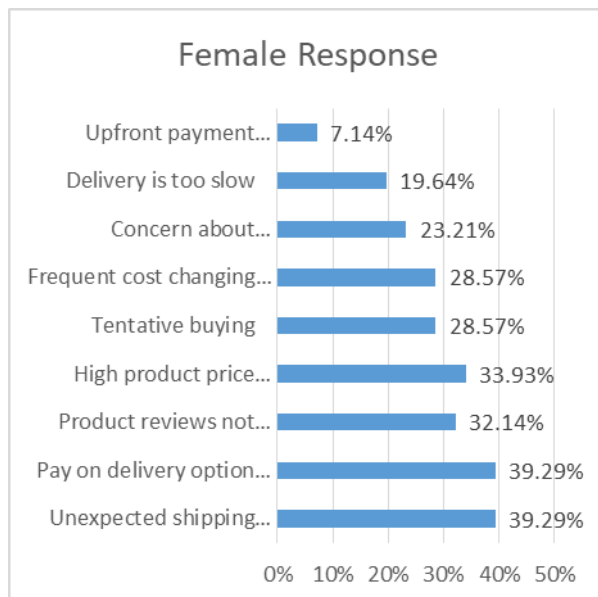


Figure 3 & 4: Splitting the response by gender

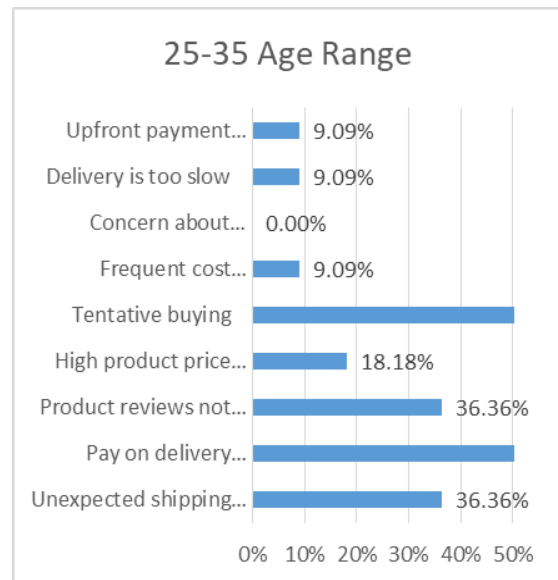
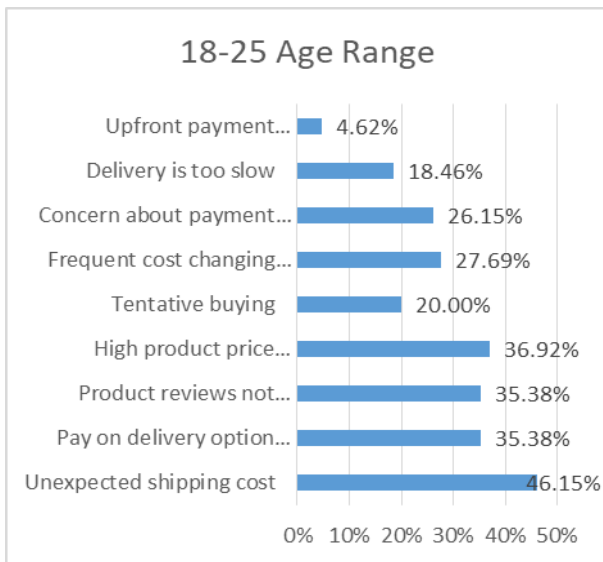


Figure 5 & 6: Splitting the response by age group

Based on the overall survey results top 6 reason will do in-depth analysis on why your visitors abandon carts.

4.2 Unexpected shipping cost added
 Probability Rank: 1

Shipping costs usually are not displayed until during the checkout process, customers feel duped by the added cost. A recent study conducted by ETSY infuriated both buyers and sellers by hiding shipping costs until checkout. The result was a decrease in orders on the site, proving the customers do not like to be surprised with extra costs.

It is within human nature to value something that is free even more than a better quality item at a small price. Free shipping can outperform discounted shipping or reduced order totals. Based on hidden costs, as shipping cost is the primary reason the visitor leave without purchasing the product. Around 44.74% of people leave the item in cart or abandon due to hidden costs. In addition to this taxes leaving on the product while purchasing which is not called out at the base price. Further analysis based on the survey data Female visitors abandonment percentage is high compared to Male visitors, age group of 18 to 25 abandonment rate is high compare to 25 to 35.

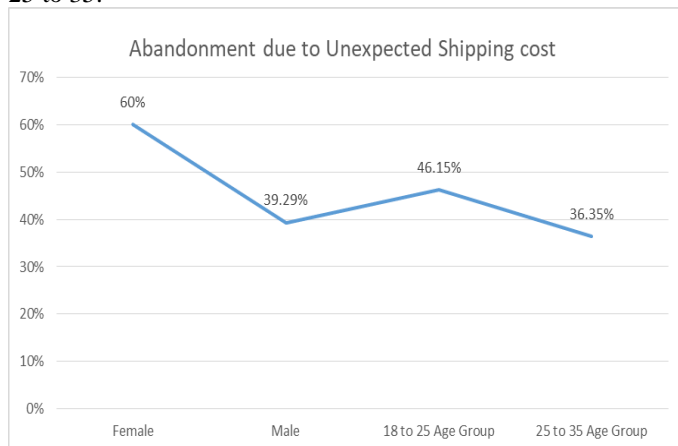


Figure No 7: Unexpected shipping cost abandonment percentage by gender and different age group

SOLUTION:

Fully disclose of the product cost with all the hidden cost would avoid annoyance and irritation at the final stage of purchase. Another strategy is to add all the extra cost of shipping into the product and offer free shipping, and if the visitor buys more products, will eligible for free shipping can give some discount would give more attract, and is crucial for store success.

CONCLUSION:

Young generation cautious about the additional costs and they do more comparisons on similar product hence the price and hidden cost should be more transparent and competitive. Pay on delivery option not available for all the products: Probability Rank: 2

Pay on delivery not available for the entire instance is increasing the cart abandonment rate. Visitors while browsing the products they may add additional items to cart(impulse buying), but sometimes do not have enough cash in electronic cards then visitor will leave the product in cart nor remove from the cart when they don't find the pay on delivery option. Considering the fact that nearly 50% of online shoppers prefer to pay cash-on-delivery (COD), this trend amounts to a major loss of revenue for the e-commerce portals. This trend is even more alarming when considering the number of payments options available to the Indian online shoppers today. So then, the customer shopping behaviours demonstrating such startling patterns. Based on our analysis there are around 38.16% of visitors leaving the items in cart or abandon the items during check out due to non-availability of pay on delivery option. Further analysis of the data Female visitors abandonment rate is high compare to Male visitors and the age group of 25 to 35 visitor's abandonment rate is high compared to 18 to 25. Below is summary of the graph.

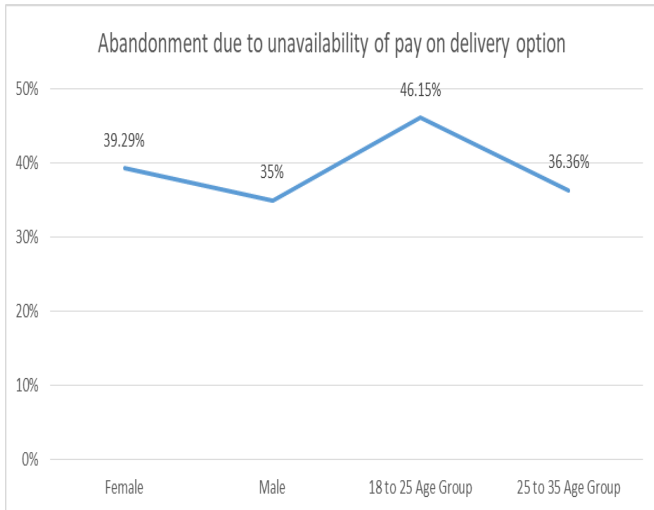


Figure 8: Unavailability of pay on delivery option abandonment percentage by gender and different age group

SOLUTION:

Retailers give an option to pay on delivery, which will reduce the cart abandonment percentage. The strong reason is, when the visitor browsing the items he/she tentatively select few items and add to the cart but while check out they might not have availability of cash to purchase online at the moment. Pay on delivery hypothetically help to reduce the cart abandonment percentage.

CONCLUSION.

Based on the survey results young generation who are aged about 18 to 25 are more percentage of population looking out for pay on delivery option available for all the items.

Note:

One of the study says, in fact, it's so important that control estimates that 50% of regular shoppers would cancel their purchase if their favourite payment method wasn't available.

4.4 Product reviews not found or less reviews:

Probability Rank: 3

For most e commerce buyers, the cart is a page used to review their order. In order to help them do so, your mission to clearly display all the relevant information regarding the product.

Important factors for any items are:

Item information:

- Clear image
- Exact name (especially important if you sell similar products)
- Specifications (e.g. power, capacity, memory, features etc.)
- Quantity (some people may want to buy more than one)
- Size (extremely important for fashion, clothes and so on)
- Color (it's one of the leading factors behind product returns)

Having all these elements clearly provided to your customers will help them quickly review their order before they purchase, this review will decrease the percentage of people abandoning their cart because of unclear information.

ITEM REVIEWS:

Bad ratings and customer comments; According to advances in economics and business 85.57% of the participants stated that they read reviews often or very often before they purchase online. Of the participants who read reviews, 83.65% compare positive and negative reviews with each other.

E-commerce store is product reviews, which is not taken into account seriously. Product reviews provide an ecommerce store with one of the most valuable resources available-customer feedback. Merchants very frequently underestimate the importance of product reviews for an Ecommerce store, while paying more attention and being preoccupied by too many tasks to manage like, optimizing site designs, eliminating customer doubts, helping opportune customers decide which product to buy, customer services and administrative tasks.

In essence, it is clear that product reviews essential for both buyers and sellers –potential consumers/customers and the ecommerce store. Product reviewing gives the power to either make or break the deal. They are, in way, a major parameter which governs the business transactions and longevity of any ecommerce store.

Based on our analysis there are around 35.53% of visitors leaving the item in cart or abandon the items during check out due to poor product description and bad reviews.

Further analysis of the data says that, male visitors abandonment rate is high compare to female visitors and the age group of 18 to 25 and 25 to 35 visitors abandonment rate is not much difference since everyone feels product specification and reviews are important. Below is summary in graph.

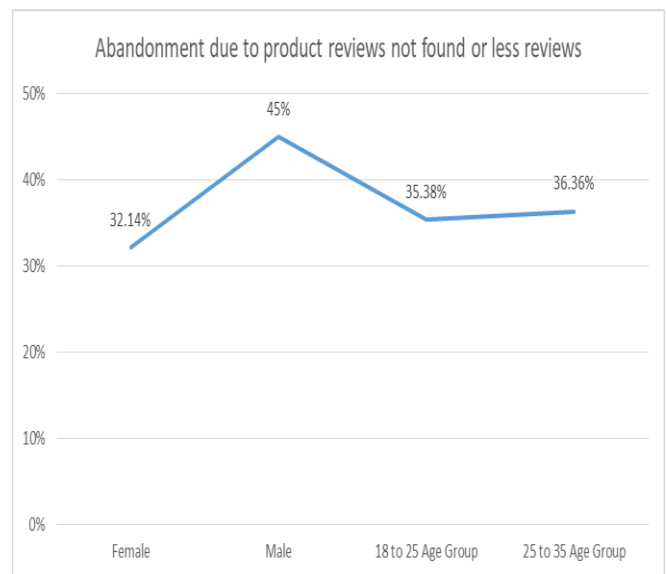


Figure 9: Product reviews not found or less reviews abandonment percentage by gender and different age group

SOLUTION:

When asking for reviews, make sure you are asking the right questions. Ask the customers who made a purchase from you for a review about a week after their order would have

arrived (or later, if your customers are not likely to use your products right away).

Do not send customers to review form riddled with unnecessary fields. The easier you make it for customers to submit the more reviews you will receive.

Incentives are great way to get people excited about sharing information. This can range from tacking rewards for reviews onto an existing rewards program, or creating new incentives for reviewers. Respond to reviews that need your attention.

If you do not offer a reward program, there are plenty of other ways to incentivize, including:

Reward points – for example every review will get some point can redeem the point's later purchase, this attracts the visitor.

Coupons- for example, you could issue a 5% coupon off their next order

Discounts- much like the above, offer an immediate % off discount.

While the type of incentive should not be the same for every store, any ecommerce site can likely increase the possibility of gaining reviews by using incentives.

CONCLUSION:

Based on the data irrespective of age group product reviews and specification are very important for tentative products added to the carts.

4.5 High product price compared to other e commerce companies

Probability Rank: 4

Pricing matters a lot in e-commerce environment, online shoppers will use webrooming to find the best price. 69% of India retailers provide incentives such as discounts, offers and coupons to draw in consumers as a part of consumer re-engagement activities.

Like any other business, the main motive of an ecommerce business is to maximize profits through maximum reach and reception. While from the customer's point of view, the main motive is to get the best products at affordable rates. This is where an effective pricing strategy come into play.

Maintaining pricing of products and services is one of the most interesting yet challenging processes in an online business. If the pricing strategy is correct and falls in place, it can pave a path for an omnichannel success.

Based on our analysis there are around 34.21% of visitors leaving the items in cart or abandon the items during checkout due to high product price compared to other e-commerce companies

Further analysis of the data says that male visitor's abandonment rate is high compare to female visitors and the age group of 18 to 25 visitors spend more time comparing the prices hence abandonment rate is high compare to 25 to 35 age group. Below is the summary in graph

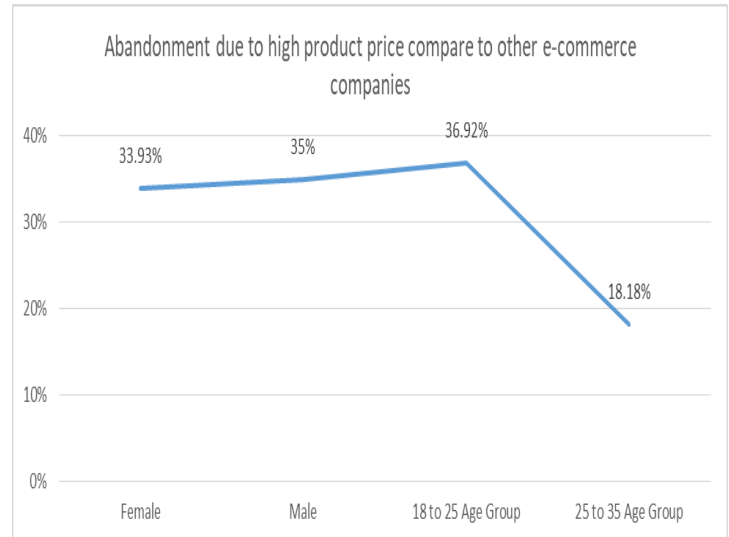


Figure 10: High product price compare to other e-commerce company's abandonment percentage by gender and different age group

SOLUTION:

Choose the pricing model best suited for your level of business and slowly you can move to higher strategies. Pricing strategy is a key binding factor for your business growth and customer retention, make sure to choose one which maintains a balance both. Some of the most effective pricing

- Cost based pricing
- Competitive based pricing
- Demand based pricing
- Value based pricing

In a nutshell, amazon uses the user's value perception and the production markup method simultaneously and prices it at the lower of the 2 provided the gap is not very huge between the 2 prices.

Opt for pricing intelligence software that has the ability to scan thousands of products every 10 minutes, lifting the burden of manually tracking competitors. It also provides retailers with additional insights on market trends. Retailers can implement different price levels and observe price elasticities before finding the optimal market price.

Conclusion:

Based on the data pricing should be very competitive and promotional activities would help to reduce the card abandonment rate.

4.6 Tentative buying

Probability Rank: 5

Tentative buying can provide the multiple outlooks necessary to understand why switching behavior during the buying decision process. This typically involves sampling the population, surveying them and using inferential statistics to analyze the responses. The focus of the analysis is to expect the determining factors influencing, in this case, what and why consumers select the products and why they switch from one way to another or leave the products in the cart.

Fashion retailers encourage engagements by offering flash sales, new style notifications and more. Such engagement

leads to increased impulse or tentative purchases, which in turn drives more traffic and GMV for online merchants. This offerings increase tentative buying and later visitors may not buy all the products. This increases cart abandonment rate.

Based on our analysis there are around 27.63% of visitors leaving the items in cart or abandon the items during check out due to tentative or impulse buying in e commerce companies.

Further analysis of the data female visitors abandonment rate is high compare to male visitors and the age group of 25 to 35 visitors tentative buying is very high to 18 to 25 age group. Below is the summary in graph.

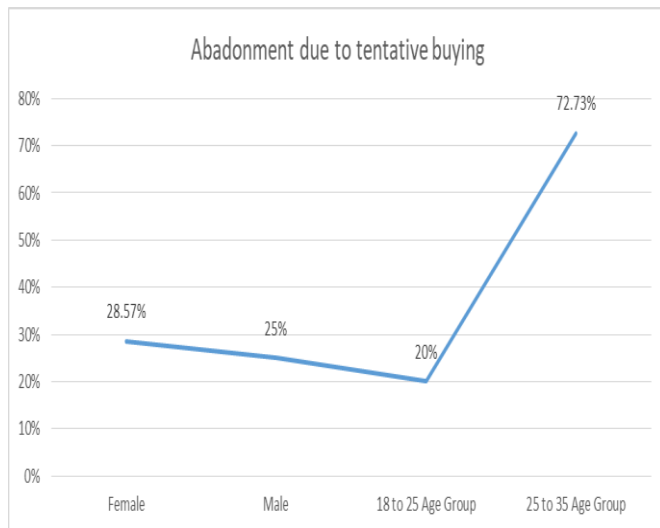


Figure 11: Tentative buying abandonment percentage by gender and different age group

SOLUTION:

Fortunately, it has been observed that live chat solutions reduce shopping cart abandonment to some extent. You can track visitors who have left the checkout process without placing an order, and engage with them, for loyalty customers provide some promotional offers. In addition, possible give pay later option like EMI or pay on delivery will help to reduce the cart abandon rate.

CONCLUSION:

on the survey data, female and 25 to 35 age groups are frequently do the tentative buying and left it in cart or abandonment. As mentioned in the solutions track them and more engagement would help to minimize the cart abandonment.

4.7 Frequent cost changing of the selected product.

Probability Rank: 6

As might be expected, the younger shoppers, who are the most coveted by brands, tend to be more fickle than their older counterparts. These shoppers are known to be impatient, highly web savvy, extremely price conscious and contemptuous of shipping costs.

Shopping cart abandonment statistics show that price consciousness is the key defining characteristics of shoppers of age 18 to 25.

Shoppers tend to window shop more often-in online stores than they do in physical ones. This includes the times when they just want to collect information on a product they are interested in or want to compare prices, but do not have any intention to complete the transaction. Visitors eager to give you another chance if they can manage to get the same products at lower price.

“Amazon changes product prices 2.5 million times a day, meaning that an average product’s cost will change about every 10 minutes”

Based on our analysis the visitors select the items and added to the cart, the plan is to buy day or two but when they visit later the cost of the products are varying. There are around 25% of visitors leaving the items in cart or abandon the items during check out due to frequent cost changing of the selected product.

Further analysis of the data says, the male visitors abandonment rate is high compare to female visitors and the age group of 18 to 25 visitors spend more time consuming the prices hence abandonment rate is high compare to 25 to 35 age group. Summary of the graph

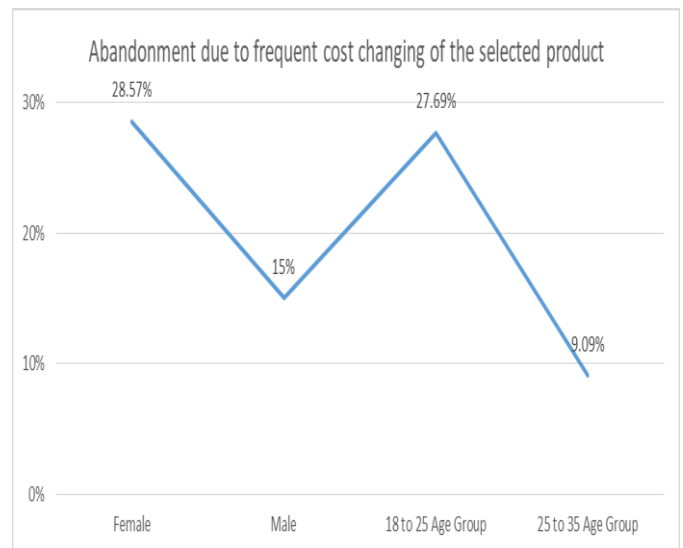


Figure 12: Frequent cost changing of the selected product abandonment percentage by gender and different age group

SOLUTION:

Retailer try to avoid drastic changes of the product price more frequently, try to avoid change price of shipping cost or any other charges frequently since visitors kept the product in cart due to many reasons. Some of the customers will definitely buy later and they would have more research on product, reviews and ratings. During the next visit the cart items price change definitely customer will disappoint and cart abandonment rate will be high, also might lose customer loyalty

CONCLUSION:

Based on the survey young generation aged about 18 to 25 years and female visitors are more cautious of price. Try to avoid the price change frequently and should be more competitive compare to others.

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