



A Novel Approach to Share the Online Shopping Cart Items in the E-Commerce Apps with Anyone

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ABSTRACT

The practice of buying items or services over the Internet is termed as online shopping. Online shopping has expanded in size and popularity over the years, certainly because people find it convenient and easy to negotiate shop from the ease of their home or office. One of the most exciting feature about online shopping, is it relieves the need to wait in long lines or search from store to store for a particular item particularly during a holiday season. Online shopping has revolutionized the business world by making everything anyone could want available by the simple click of a mouse button. Local retailers are attempting to expand their footprints by offering goods for sale via online shopping so as to better compete with the likes of Amazon.

As updated on May 2019 Ecommerce is anticipated to be the largest retail channel in the world in just three years. People aren't just spending more time shopping online, Ecommerce statistics say they're spending more money each time they shop online. Statista forecasts that consumers worldwide will spend up to \$4.8 trillion online in 2021. In this paper I propose a novel concept to share a cart from your device to anyone else's due to the situations detailed in this paper. It serves a great use to the user's and makes using online shopping more sensible, economical, fast and more digital.

I. INTRODUCTION

Online shopping has expanded in size and popularity over the years, certainly because people find it convenient and easy to negotiate shop from the ease of their home or office. One of the most exciting feature about online shopping, is it relieves the need to wait in long lines or search from store to store for a particular item particularly during a holiday season. Online shopping has revolutionized the business world by making everything anyone could want available by the simple click of a mouse button.

Below are the 6 Ecommerce statistics provided by the leading organizations:

87% of shoppers today use Ecommerce reviews to decide whether to buy, and 77% of those shoppers buy online.

1.92 billion People will buy something online in 2019.

Ecommerce is only about 5% of Omni channel spending, but it's responsible for 40% of its growth.

Only 26% of the small business market has tried to create their own online Ecommerce store.

71% of consumers who've had a good social media experience with a brand are likely to recommend it to others.

72% of Ecommerce will take place on a mobile device by 2021.

So, is there any strong reason as to why has there been such a major increase in online retail and Ecommerce activity? The answer is Simplicity. Shopping online has become more meaningful, convenient, and practical. Customers have the freedom to purchase Ebooks, clothing, and more from all over the world from their place using tablets, smartphones, and computers. They can even collect feedback from other customers across the world. With a few clicks of a button, they can have quality goods and services delivered straight to their door instantaneously.

US Ecommerce Statistics

Roughly eight-in-ten Americans are now online shoppers: 79% have made an online purchase of any type, up from only 22% back in 2002.

Projections say there will be 224 million digital shoppers in the United States in 2019.

77% of US small businesses use social media for key business transactions like sales, customer service, and marketing.

23% of Americans say they shopped more online in 2018, and 11% say they plan to increase their online shopping in 2019.

US Ecommerce sales are estimated to be \$690.84 billion by 2020, increasing to \$891.7 billion by 2022.

47% of online buyers in 2018 said free shipping was the deciding factor when choosing who to buy from online.

Websites with more than three seconds of loading time lose 40% of their initial website visitors.

Advantages of online shopping

Provided the fast growth of technology, organizations have transitioned over from the traditional method of selling goods to electronic method of selling goods. These organizations use internet as a main vehicle to conduct commercial transactions online. Below are the most trivial advantages of online shopping.

1. Accessibility of online shopping

Consumers can purchase items from the comfort of their own homes or work place. Shopping is made

easier and convenient for them through internet. It is also easy to cancel the transactions when the consumers change their mind.

The following points depict the factors which motivate the online shoppers to buy products online.

1. Saves time and efforts.
 2. Convenience of Shopping at home.
 3. Wide variety / range of products are available.
 4. Good discounts / lower prices.
 5. Get detailed information of the product.
 6. We can compare various models / brands.
- ##### 2. Availability of online shop

The mall is open on 365 x 24 x 7. So, time does not act as a barrier, wherever the vendor and buyers are.

3. Online shopping saves money

To attract customers to shop online, e-tailers and marketers offer discounts to the customers. Due to elimination of maintenance, real-estate cost, the retailers are able to sell the products with attractive discounts through online. Sometimes, large online shopping sites offer store comparison.

4. Online tracking

Online consumers can track the order status and delivery status tracking of shipping is also available.

5. No pressure while shopping

Usually, in stores, the sales executives try to sway the buyers to buy the product. There can be some kind of inconvenience or pressure, whereas the customers are not pressurized in any way in online stores.

6. Comparisons

Companies display the whole range of products offered by them to attract customers with different tastes and needs. This enables the buyers to choose from a variety of models after comparing the finish, features and price of the products on display. Sometimes, price comparisons are also available online.

7. Online shopping saves time

Customers do not have to stand in queues in cash counters to pay for the products that have been purchased by them. They can shop from their home or work place and do not have to spend time traveling. The customers can also look for the

products that are required by them by entering the key words or using search engines.

Role of technology in online shopping

A study of the 2017 e-commerce trends, shows that over 51% of Americans prefer online shopping. The rewarding nature of the e-commerce market is luring an increasing number of ventures to this domain.

However, in order to prosper amidst the unsparing competition and make their business successful, marketers need to focus on offering an unparalleled shopping experience to their customers. Technology has always come to the rescue and it has changed the manner in which retailers and customers interact, enabling marketers to build their online brand image and justice.

Below are six ways in which digitization and retail technology are changing the future of online shopping:

1. Cross-Channel Purchases

According to the UPS Pulse of the Online Shopper 2016, 38% of all purchases are made through multiple channels. Technology and social media are central to omnichannel shopping. Shoppers are conducting online product research using mobile applications and going through the social media ratings, online customer reviews, brand promotion videos, and product photographs submitted by other users.

Consequently, shoppers use multiple channels to make a decision, selecting the products and services with fluidity. In order to ensure consistent profits, e-commerce retailers must improve their digital presence across a variety of channels.

Retail technology is revolutionizing online shopping by enabling businesses to adopt innovative ways to engage their customers. Keeping up with this tech will separate the leaders from the laggards.

2. High Supply Chain Efficiency

The present-day customer tends to have a 'buy-now' mindset and expects a faultless service through the entire life-cycle of the order.

An annual study published in the Future of Retail 2016, shares that in recent times customers expect

seamless and quick shipping, delivery, exchanges, and returns from e-commerce firms. Consequently, retailers need to focus on improving their customers' shopping experience rather than merely increasing their customer base.

Retail technology is helping e-retailers improve their supply chain and logistics using the lean methodology to streamline these processes and eliminate inefficient operations.

Supply chain practices such as cross docking, direct delivery to stores, real-time delivery, third-party logistics, and cross-functional integration are playing a major role in making the business processes more efficient.

Logistics and omnichannel order orchestration offer retailers data on the real-time orders, inventory visibility, order aggregation and fulfillment, and customer service, enabling them to optimize their supply chain systems.

3. Artificial Intelligence

According to a study presented by Gartner, an American research firm, by 2020, 85 percent of customer interactions will be managed using Artificial Intelligence (AI).

Owing to its expertise in delivering a customized experience, retailers are increasingly employing Artificial Intelligence to stay above the competition, such as chatbots designed to simulate conversations with online customers.

Moreover, AI is being increasingly used to handle customer data, analyze and influence customers' buying behavior, prevent fraudulent transactions, and predict consumer behavior, enabling online retailers to automate their businesses.

For instance, Amazon's virtual assistant, Alexa, offers e-commerce retailers a creative opportunity to influence customer preferences. Upon receiving a voice request, Alexa recommends products, arranges transport, and orders meals for the user, impacting the way a customer makes a purchase.

4. Dynamic Pricing Strategies

The online retail market is highly price-sensitive and competitive. Dynamic pricing is a strategy used by e-retailers whereby the price of the products or

services offered are changed depending upon the supply and demand. Simply put, it is a flexible pricing strategy that allows retailers to alter the prices of their commodities based on internal (inventory and sales targets) and external (competition) factors.

When a retailer notices a fast-moving product, he/she will temporarily increase its price to avoid complete depletion of stocks. Similarly, when a firm's sales targets are high, it may choose to push sales by offering a lower price on its products.

Dynamic pricing also enables firms to monitor their competitors' pricing strategies, helping them make sound pricing decisions. For instance, if its competitor's stocks are low, a firm can choose to increase the prices, boosting its sales and profits.

The real-time price changes significantly impact the bottom-line of the e-commerce firms; consequently, dynamic pricing strategy is a must for the online shopping market.

5. Behavioral Analytics

With mobile users becoming increasingly comfortable with online shopping, web analytics and customer behavioral analytics are gaining importance.

Customers prefer to do an online research on products and services. However, they expect e-retail stores to offer them an array of options with respect to their preferences and buying behavior. Online business analytics offer rich data on the customer behavior trends, helping retailers improve merchandising, supply chain, marketing, advertising, and other strategic decisions.

Behavioral analytics tracks shopper's search and purchase history and their interactions with the customer care professionals, offering a wealth of information to online marketers. This data enables retailers to predict and suggest the relevant products and services to their target customers.

6. Smartphone Shopping

Market research conducted by comScore Inc. revealed that more than 86 million Americans use their smartphones for online shopping. The study found that four out of five smartphone users do a

thorough research on the products and services available online before making a purchase.

Smartphones have become the default screen for brand engagement and e-commerce transactions, making it crucial for marketers to maintain a good online reputation and offer fair pricing strategies. To drive their business growth, marketers must strive to make the mobile shopping experience enjoyable, informative, and convenient for their customers.

II. PROBLEM STATEMENT WITH ONLINE SHOPPING

With all the advantages and strength of the online shopping given above, is there any gap between the organizations and the consumers in any way? It's hard to point out any significant gap that needs much attention. With the help of the above mentioned technologies the online shopping is on cloud nine and it's going unstoppable. However, some more uncommon disadvantages of online shopping are given below:

In this paper I have tried to point out not a disadvantage of online shopping, but a significant gap which is often felt by the potential users. This happens when a user has added items to his cart and he is unable or don't want to place the order for several reasons. The reasons can be as follows:

He/she doesn't have attractive offers on his credit/debit card than his/her friend's whose credit/debit card has good offers at that moment.

User A's internet connection is slower so he wants his friend B to place the order from B's mobile.

User A has no time to select the items so user B has done on behalf of user A but at the end user A will book the final list from his mobile just by reviewing the items selected by user B.

There can be many more situations similar to the above mentioned ones but however in all such situations what we feel is that we don't have a feature to share our cart with our friends or someone who we know.

Now the question is how to share the cart?

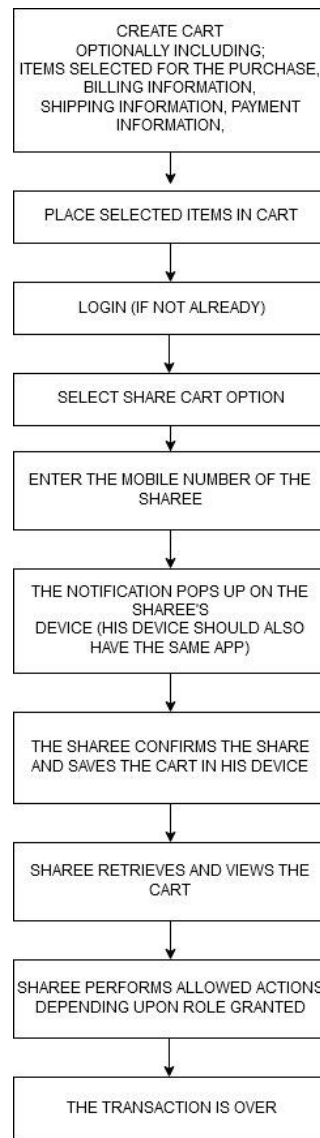
We have to manually tell what is there in our cart and the other person will manually add those items to his cart.

We take a snapshot of our cart and the other person again manually adds those items to his cart. The above mentioned ideas don't serve the purpose of what is called as "sharing the cart." In this paper I have discussed the concept of sharing one's cart with someone else to complete the transaction.

III. RESULTS AND DISCUSSION

A device-implemented method of sharing an online shopping cart from one user's device to another user's device over a computer network includes the steps of providing the phone number of the sharee, the sharee being a person with whom the shopping cart is shared. One of a plurality of predetermined roles may be specified for each sharee, each of the plurality of roles defining privileges granted to the sharee. A notification such as a text message or an email, may then be sent to the sharee's email or his mobile, the cart number, and the cart items. The sharee may then retrieve the saved shopping cart over the computer network by accepting the notification send by the sharer from his device. The sharee may then exercise only those privileges defined by the role specified for the sharee. The roles may include, for example, "checkout", in which the privileges granted consist of completing the transaction by the share from his account. The detailed flowchart consisting of the steps is given below.

Flowchart depicting the steps of cart sharing concept.



IV. CONCLUSION

This paper discussed an innovative approach of sharing the online shopping cart with the users of their choice for several reasons. The sharee upon accepting the cart from the other user completes the transaction from his account. This can be useful when the original user has slow internet speed, no offers on his credit/debit card, no delivery to his address and so on. It thus makes online shopping experience more convenient, more robust and gives a new exciting feature for the shopping apps.