THE ABANDONED E-TAILER SHOPPING CART: FACTORS AND BUSINESS STRATEGIES TO REVERSE THE BARRIERS

*Banwari MITTAL *(Orcid Id. 0000-0001-9246-4379)*

*Northern Kentucky University, USA

ABSTRACT

During the COVID-19 pandemic and due to the lockdown of physical stores, consumers' online buying activity increased substantially, and now in the post-COVID era, it is going to continue. One problem of great concern to e-tailers has long been the high rate of shopping cart abandonment. About two-thirds of all online shopping carts get abandoned, costing e-tailers huge lost sales. Over last two decades, consumer researchers have investigated the consumer psychology behind this consumer act. This body of literature is fragmented and a comprehensive list of factors that drive cart abandonment does not exist. Drawing upon the available literature, we build such a list, aligning it alongside the customer journey.

*Because a list of the causes of cart abandonment does not exist, a comprehensive management guide for action to curb the abandonment does not exist either. In the trade press, blogs and promotional ideas do exist, but they are fragmented and are not grounded in any conceptual framework. We propose that **trust** is a fundamental force at every stage of the customer journey, a force or factor that propels the customer in their forward journey, and its absence causes the customer to abandon their online shopping carts. We propose that trust is warranted at three different loci (or facets) in the customer journey, and we map separate "trust builders" for each locus or facet.*

We next depict both the causes of abandonment and its rescuers (i.e., actions to save the cart) in a wheel model comprising five sectors. This wheel model serves both as a conceptual grounding and as a visually helpful managerial guide for strategic action. These actions are next mapped against the characteristics of strategic management. It is shown how actions to control cart abandonment interface with strategic management. We offer this wheel model for empirical test by future academic researchers. Just as important, this model can also serve e-tailers in their adoption and implementation, by some of them in A/B test protocols as prelude to large scale adoptions.

Keywords: online shopping, marketing strategy, e-tailers, consumer behavior, trust

INTRODUCTION

The COVID-19 pandemic has turned our lives upside down. Consumers worldwide have had to adopt new shopping habits. Facing the lockdowns and the consequent physical marketplace closures, or to avoid the infections from visiting physical stores, consumers took to online shopping like never before. According to an industry report, online retail sales increased from 3.354 trillion U.S. dollars in 2019 to 4.23 trillion U.S. dollars in 2020 and an estimated 4.89 trillion U.S. dollars in 2021 (Chevalier, 2021). One sad episode in this otherwise growth story is the high proportion of abandonment of the online shopping cart. Worldwide, three billion online shopping carts are abandoned every year, according to one industry report (Serrano, 2020). Another industry survey reported an abandonment rate of 78.65% in 2017, rising from 59.8% in 2006 (Coppola, 2020). This is a marketplace phenomenon that is of deep concern for e-tailers and, therefore, should receive close scholarly attention.

An understanding of shopper experiences with e-tailer sites that cause them to abandon their virtual shopping carts was of immense importance in the past, of course. But now in the post- COVID-19 period, as more and more people continue their new habit of online shopping (Morgan, 2020; UNCTAD, 2020), the e-tailer features that might cause cart abandonment among this new wave of shoppers is in need of even more urgent study. The goal of the present paper is to identify a comprehensive list of consumers' reasons for abandoning their online shopping carts. We do this by reviewing the body of research studies on the topic. We then build strategy recommendations for businesses to reduce or minimize this source of loss of sales and revenue.

FACTORS CAUSING SHOPPING CART ABANDONMENT

Marketing scholars have investigated consumers' online shopping behavior for more than two decades now, with some more than a hundred studies—a large body of them in the USA and Canada, for sure (e.g., D'Astous, 2000; Mittal, 2005; Swinyard and Smith, 2003), but many of them have been situated in diverse countries across the world—e. g., India (e.g., Indiani and Fahik, 2020; Awasthi and Mehta, 2021), Bangladesh (e.g., Hossain, Uddin and Islam, 2021) China (e.g., Xu and Huang, 2015), Turkey (e.g., Topaloğlu, 2012; Türkmen, 2020), and Nigeria (e.g., Esho and Verhoef, 2021), for example. Some of these studies have focused on the question of why online shoppers abandon their carts, the topic of the present paper. Because each study hypothesizes and investigates the factors its authors considered important, the studies do not share a common list of factors (e.g., Close and Kukar-Kinney, 2010; Kapoor and Vij, 2021). We survey this literature to build our list below. We also draw upon trade press surveys by commercial market research agencies) where possible to supplement our sources (e.g., Hall, 2021; Morgan, 2020).

The Funnel Model of Customer Journey

Marketing literature has modeled customer journey as a funnel, where customers first encounter a large number of product alternatives and become interested in considering them (Cornfield, 2021; Grewal and Roggeveen, 2020; Lemon and Verhoef, 2016). The number of alternatives get progressively narrowed (hence the name "funnel") until a final choice is identified (Punj and Moore, 2009). The *funnel* concept also implies that the number of customers become progressively smaller as they advance from the first to the last stage. For online shoppers, we show four stages of this funnel. First, the customer enters a Website (Stage 1). Next, they gather product information and engage in product evaluation (Stage 2). When they have identified the item they liked the most, they place it in their virtual shopping cart (Stage 3). From there, they proceed to the checkout (Stage 4).

In this journey, along their path, they face different barriers that keep them from advancing to the final stage (Bell, McCloy, Butler, and Vogt, 2020). See Figure 1. The first hurdle is that upon entering the site, the visitors find that the web pages take too long to load and also navigation buttons may not be clearly placed for easy visibility, or clicking on them opens up pages with content that is different from the expected content. This could cause shoppers confusion and lead them to leave the site. Web pages loading too slowly has been a factor found significant in studies of cart abandonment by Erdil (2015) and Sondhi (2017). Some sites also require customers to register or fill a form before they can browse more information, and this is an "account fatigue" factor that discourages customers to continue on that site (Kapoor and Viji, 2021)

At the next stage (Stage 2), when shoppers are clicking on products to get more information, the site may not offer complete information or may not offer information in a manner easy to appraise. For example, in a recent search on Amazon for outdoor flood bulbs, some brands would not reveal the life of the bulb (number of hours) or equivalent watts (outdoor bulbs are specified as PAR20, PAR30, or PAR38, but different brands translate into different Watt-equivalent even for the same PAR rating.). Given this kind of gap in information across brands, the e-shopper is likely to experience pre-decision conflict or non-closure and may decide to exit the e-tailer site (Huang et al., 2018).

Assuming the product information was available as needed, at the next stage, the shopper proceeds to decide which brand or version will fit their need, if any. At this stage, either they may find that none of the available brands meet their needs, or they may be unsure of the quality of the offered brands or options. Perceived risk is a major deterrent in online and offline shopping alike, but in online shopping, it is exacerbated due to the relative anonymity of the e-tailer (Banerjee and Vidyasagar, 2021; Moore and Mathews, 2006; Rajamma et al., 2009). Assuming the shopper has found an option or brand that they want to buy, they place it into their shopping cart (Stage 3 concluded).
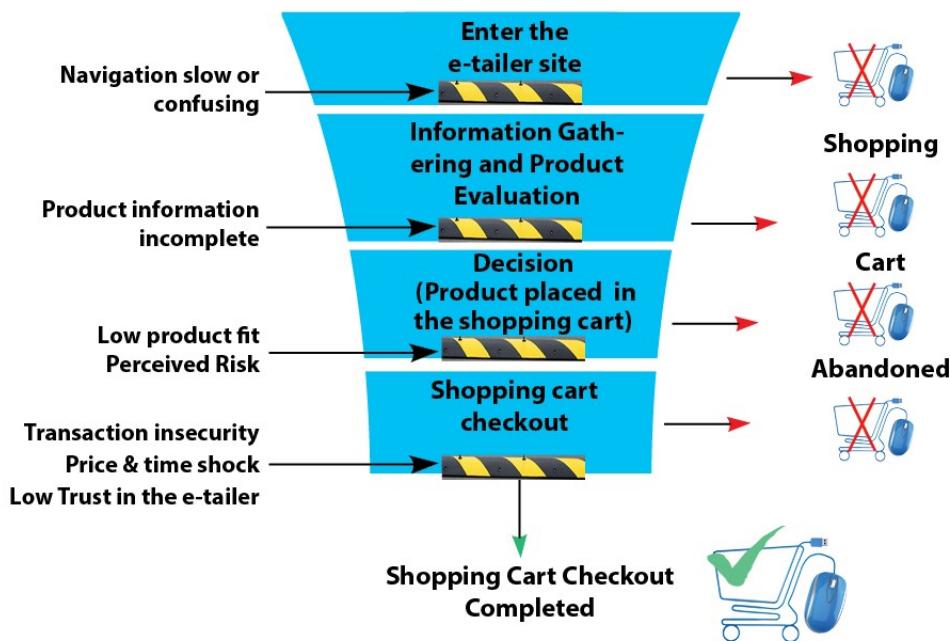
Figure 1. Customer Journey Funnel and Online Barriers

Now, at the next stage, they proceed to checkout (Stage 4). At this stage, the site shows them the total cost (including shipping and tax), and the total cost may come as a shock (Cho, 2004; Kukar-Kinney and Close, 2010). Or the shipping time may be too long relative to when they need the product. Also, when it is time to fill in their credit card information, shoppers may feel the risk of their information being stolen (Cho, 2004; Moore and Mathews, 2006). This fear of transaction insecurity is heightened with unknown e-tailers, but even with known e-tailers, the current news of third-party hacking of Websites gives cause for hesitation (Cho, Kang, and Cheon, 2006). Then, there is also the risk of trusting the e-tailer for delivering the product (Banerjee and Vidyasagar, 2021; Cho, 2004). Lack of trust can block the customer journey at any stage and is perhaps the single most consequential barrier to the completion of the journey. Therefore, we describe the role of trust in detail next.

THE ROLE OF TRUST IN ONLINE SHOPPING

In Figure 1, Trust has been recognized as a barrier only at the checkout stage; this is so because existing literature has visualized it that way. In fact, however, lack of trust could derail a customer's journey at any stage. Indeed, trust is such a powerful factor in e-shopping that it warrants a full discussion of its own (Balsura and Vaghela, 2020; Pappas, 2016). In Figure 2, we model its comprehensive drivers. As this figure shows, in the customer journey, trust (or lack of it) arises in three loci (or facets): (i) Trust in the e-tailer per se, (ii) Trust in the products being presented, and (iii) Trust in the transaction security. How can e-tailers mitigate these trust concerns? Each facet requires a different action. In Figure 2, these mitigators of distrust, or drivers of trust, are grouped into two types: (a) Structural—these pertain to "who you are," as an e-tailer; and (b) Performance proof—what do you do or what have you accomplished or what proof can you offer.

Trust in the e-Tailer

Some e-tailers, like Amazon.com, are of course well-known to almost any shopper and are therefore trusted. Also trusted are the Websites of big brands with a long offline presence. But a large number of e-tailers have an "online only" presence or are otherwise new to the shopper. Doubts in the e-tailer's credibility are natural in such cases. The first requirement to establish trust in the e-tailer is to offer a self-introduction in sufficient detail—that is, make the "About Us" page fully informative and transparent. Next, it helps to also

include a short profile of the site owners or company executives, along with their pictures, i.e., literally give the site a "human face," so to speak.

To serve as *performance proofs*, three features will help. First, if there are any certificates and membership seals (e.g., Member of BBB or Trade Associations), they should be displayed prominently. Next, in B2B settings, many e-tailers list their current clients or partners, often displaying the familiar brand icons of these clients. In retail consumer settings, e-tailers may feature selected customer testimonials, preferably with real names and customer photos. Third, displaying social media icons linked to your social media enables site visitors to verify your presence (and the size of your following) on social media.

Trust in Products

To create trust in products, there are three structural drivers. First, present complete information; second provide good quality product pictures; and third, where possible, offer 360-degree view of the product in a video. This is "what you are" for the product displayed. In addition, two performance proofs will enhance shopper trust in the product. One, include any quality ratings or quality certificates and product warrantees. And second, offer social proof. Social proof consists in indicators that other users (similar to the shopper) are using the product. Thus, any testimonials from actual past customers will offer the valuable social proof. Also, large and engaged brand following on social media will be further proof.

Trust in the Transaction

Finally, this is the moment of truth. The shopper has already found the item they wanted to buy, and they have placed it in the shopping cart. Just when they are ready to buy, the checkout stage also presents powerful barriers in the shape of transaction risks. Can they trust the e-tailer site with their payment information? Here, two structural features will go a long way. First, the e-tailer should use a secure website, which is indicated by the URL address being https://; second, a security lock or seal of payment being safe and encrypted will help assure the shopper. Three performance proofs are customer service, satisfaction guarantee, and return and refund offer. The e-tailer site should display customer service contact number, an email address or icon, and availability 24/7. Second, the site should offer satisfaction guarantee. And third, the site should describe the e-tailer's return and refund policies clearly. When a product is bought unseen, untested, customers would want to be able to return it conveniently, and if return and refund information is not visible on the Website, customers will not be able to trust the site.
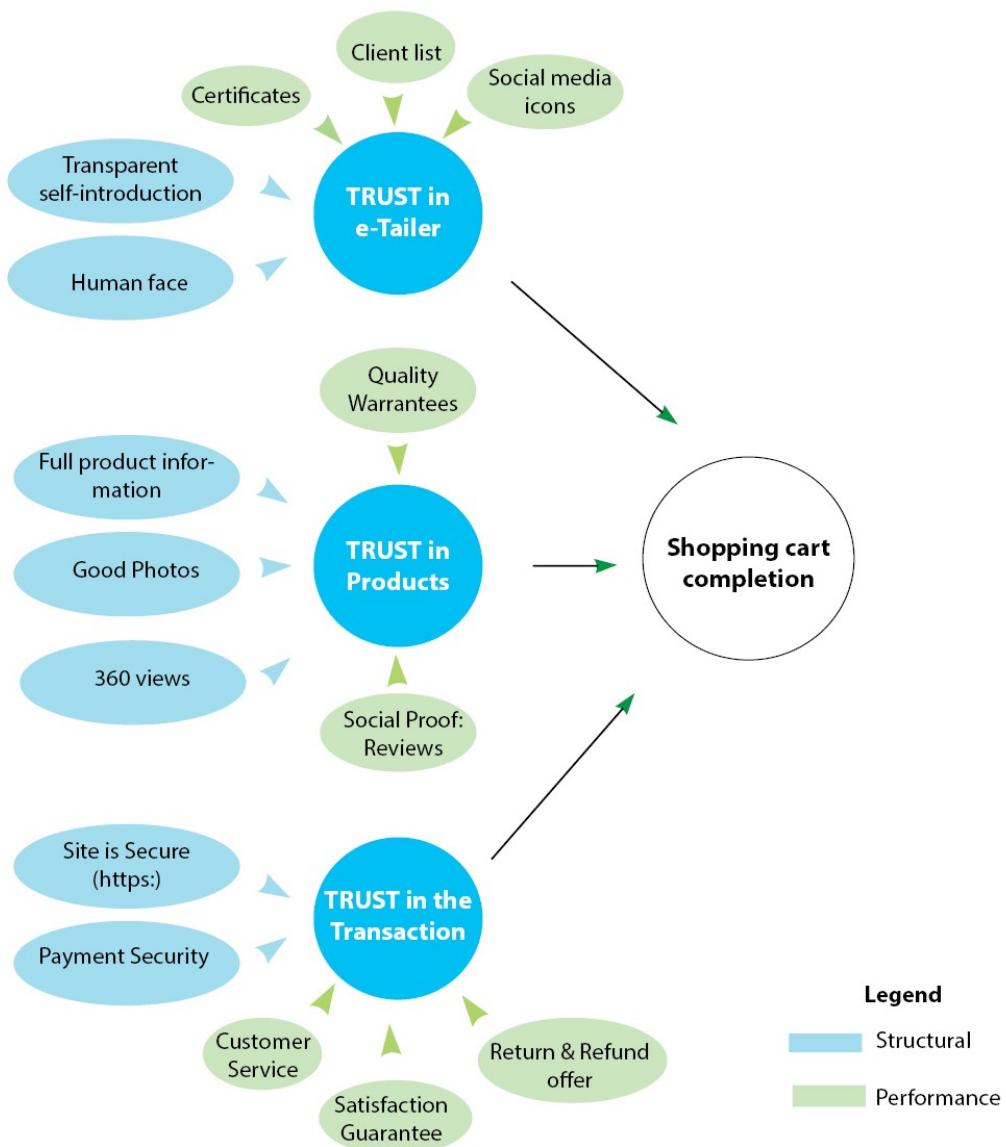
Figure 2. A Model of Trust Factors in Shopping Cart Completion

A MODEL OF ABANDONMENT DRIVERS AND RESCUERS

The foregoing was a list of e-tailer site features that lead to abandonment. In the next section, we present a Five-Factor Model of Abandonment drivers and, correspondingly, five rescuers, the strategic actions that will rescue the abandoned (or about to be abandoned) shopping cart. In these conceptual models, the e-tailer attributes discussed above are pulled together in more organized conceptual categories, and we amplify them and add some additional commentary.

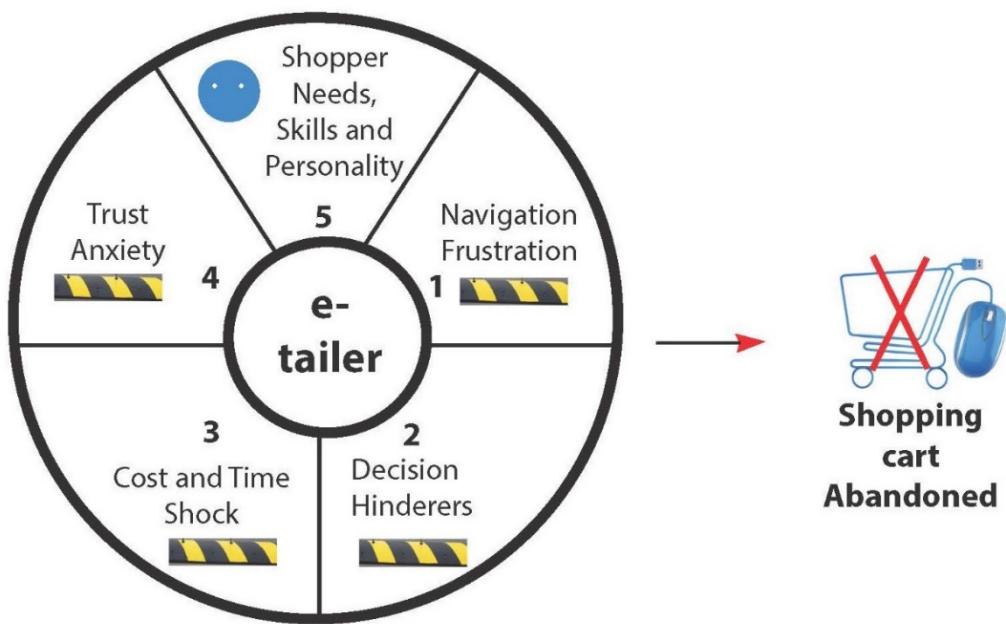# Five Drivers of Abandonment.

See Figure 3.

Figure 3. Drivers of Shopping Cart Abandonment

Navigation Frustration

Many websites load too slowly and some have dead links. Slow loading Websites and dead links are the number one reason e-shoppers get annoyed and leave the site (Rajamma, 2009). Site navigation can also be frustrating if the buttons are not named intuitively or if they are not placed where we would expect them (Brown, 2015). Sometimes the promotional pop ups interfere with the task the consumer is focused on. Sometimes, the site blocks you to progress unless you first register or fill in some other forms. If the cognitive demands in navigating the site are too many, the shopper will get confused and frustrated.

Decision Hinderers

Consumers visit a web site to find products they want and find information about those products that will help them decide whether the product will meet their needs. If a website does not offer a good assortment of products or does not show alternative models of the same brand or same product, consumers will not feel comfortable making their selection. Research in consumer psychology has shown that consumers need to engage in some search, an amount of search they consider warranted, before settling on a choice (Mittal, 2016). Next, consumers look for all the information they want to consider before making their selection. Incomplete information about some items will make them unable to decide even if complete information is available on all the other alternatives. This is because, in that scenario, they will still feel they have not done due diligence before making their selection. Thirdly, if the website does not present the information in a manner that is easy to understand and organize in one's mind, for example, information being too technical, or lopsided, then the site visitors will not be able to evaluate the product and will abandon the e-tailer (Benn et al., 2015). A distinct reason also is that when examining a product on an e-tailer site, they realize they need to see the product physically. This is true for functional products to grasp the physical dimensions of the product, for example, the space in the individual compartments or shelves in a refrigerator; or sometimes to actually try out the fit of a product such as clothing or shoes. For products where the visual appearance is an important criterion (as in clothing or furnishings), seeing the product merely on the virtual screen might prove inadequate. Consumers may actually want to see the product in

its physical form. So, they decide to visit a physical store and abandon the e-tailer shopping cart (Cho, 2004; Song, 2019).

Total Cost and Delivery Time Shocks

Imagine you are buying a set of electronic toothbrushes. On Amazon.com, you found two that you consider further. Kingheroes Sonic and Electric Toothbrush with 8 Brush Heads & Travel Case for $16.99 and AquaSonic Black Series Ultra Whitening Toothbrush with 8 Brush Heads & Travel Case for $36.95. (Prices accessed on Dec. 8, 2021.) To mitigate the product performance risk, you decide to buy the AquaSonic, based on the brand name, and so as to avoid any performance risks. However, when you arrive at the checkout page, you discover the total cost as $43.12 ($2.22 as Tax and $3.95 for shipping). You remember seeing it at the local drugstore at 38.95 (plus tax=2.35), i.e., at a total cost of $41.30. So, you abandon the online shopping cart.

Another barrier is the time delay**.** The merchandise is on backorder and will be delivered not before two weeks. Even if you don't need it for two weeks, just the idea of this long a wait acts as a psychological damper (Han and Kim 2017; Lepkowska-White, 2004). Sometimes, even the normal shipping time of 3 to 5 days discourages the purchase if we knew that we could pick it up right away from a nearby drugstore.

Trust Anxiety

A product selection is basically a trade-off consumers make between costs and benefits, or more accurately, *perceive*d costs versus *perceived* benefits. Apart from the monetary costs (i.e., the purchase price of the product and the cost incurred in using the product), one other type of cost is the perceived risk, comprising the uncertainty of product performance—that the product may not perform as described (Moore and Mathews, 2006; Park and Kim, 2010). In the physical world, consumers mitigate this risk by reliance on the brand name and by trial of the physical product. But with an online retailer, product trial is not possible, and other types of risks enter the picture. The e-tailer is unseen and untested, so their "word" is not automatically trustable. The "word" consists of the statements made online, both about the product and about the service activities surrounding the purchase.

Two explicit trust risks relate to the transaction security. One of these relates to the fact that money is handed over to the e-tailer, but the merchandise may never be sent and the e-tailer will become nonresponsive after the purchase. The second risk is the loss of privacy and security of personal information. The information about credit card and one's social security number or bank information, if stolen or shared with unauthorized persons, can result into a substantial financial loss. One's personal information such as the delivery address, name and other demographics, and even the nature and kind of product bought (e.g., dress size or a taboo product) must remain private but there is risk that it may not, either due to the e-tailer actively selling such information or dues to the merchant's neglect in securing the information (Indiani, and Fahik, 2020). These risks are experienced at the time of checkout and cause many shoppers to abandon the e-tailer cart at the last minute, in favor of a decision to visit a physical merchant.

Shopper Needs, Skills, and Personality

The final factor resides not in the e-tailer attributes but in the characteristics of the shopper himself or herself. First, not all site visitors are adept at navigating the site. COVID-19 induced many customers to go shopping online for the first time, and they are likely to find navigating the sites cognitively challenging. They might have entered the online store hoping to easily find the merchandise and, after a few clicks, they might as quickly leave the site, deciding to instead visit their tried and true channel (offline) in person.

A second personal factor is their decision-making style. Not all consumers make the decision the same way, of course (Chang and Wu, 2012). One research study has identified four decision making styles: Optimizers, balanced diligence, confused indecisives, and snap deciders (Mittal, 2017). When these four types of shoppers abandon their e-carts, their reasons will be different. Snap deciders want to decide quickly and therefore are more likely to consummate their purchase; this will be the case, however, only if the product they are looking for can be found in the early stages of their browsing of the e-tailer site. If the site requires them to "dig deeper," then they might very well quit the site. The second type, *Optimizers*, will seek comprehensive information and will leave if such information is not available (Mittal, 2016, Rogge, 2017). In contrast, *Balanced diligents* will seek information on important dimensions but without having to spend

exorbitant effort. Finally, indecisives are the least likely to complete the transaction due to lingering doubt as to whether they have found the best alternative.

Also, some consumers are deal seekers and have propensity to not buy until they have a deal (Mittal, 2016b; Weng, 2016). In online shopping research, many shoppers abandon their carts because they decide to wait for a better price (Kukar-Kinney and Close, 2010; Lee et al., 2019). Thus, bargain-seeking personality trait is another reason for cart abandonment.

STRATEGIES TO CURB THE CART ABANDONMENT

The Wheel Model

In this section, we develop a set of business strategy actions to curb the e-tailer cart abandonment by shoppers. We align these "rescuers" with the five drivers of abandonment. See figure 4. The proposed five business strategies are: (1) Intuitive Website Design; (2) Product staging; (3) Fast-Fulfillment and Cost sharing; (4) Trust Builders; and (5) Cart Recovery. See Figure 4.
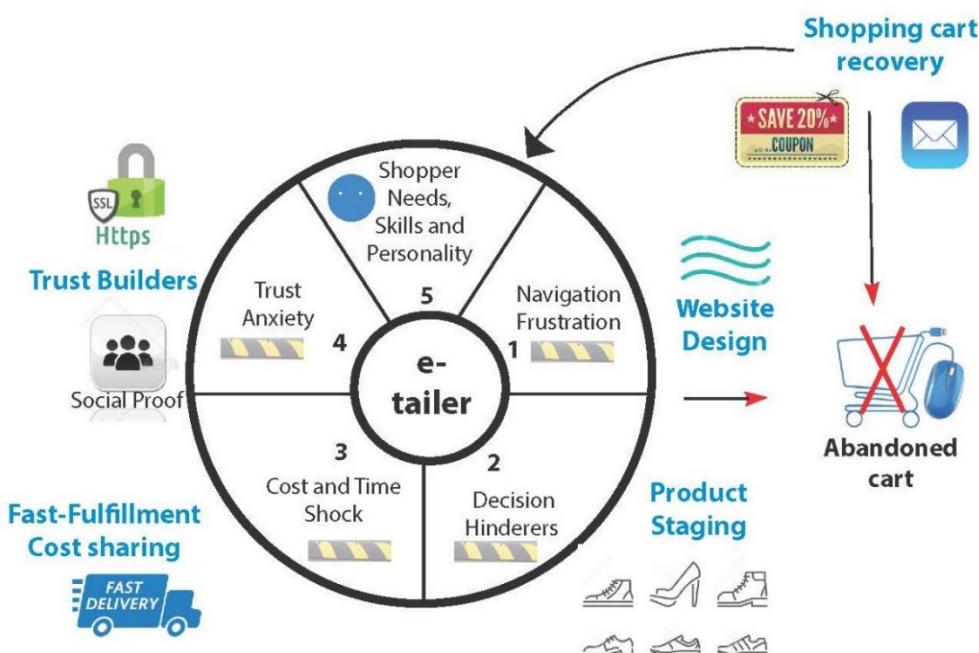

Figure 4. Strategies to Remove Barriers to Shopping Cart Completion: The Wheel Model

Intuitive Website Design

The Website should be designed so as to be intuitive to navigate. Its layout should be easy on the eye and should have visual appeal also. The appearance of the Website is used by consumers as a surrogate indicator of the quality of the merchandise and also the quality of the e-tailer, i.e., that the retailer is a professional and can be trusted (Esho and Verhoef, 2021; Poddar and Donthu, 2009). Another feature should be that if a shopper leaves the site to attend to other chores, the site should save his/her cart or even search history. Some sites offer a "Wish List" option, which allows the site visitor to save the outcomes of their search for a later visit. The shopper should also be able to resume the search across devices, even without registering (the devices are connected via a shared email address or phone number. Devices are recognized as belonging to the same customer by a shared email address).

Another feature to add is the availability of a chat with a virtual agent, so any questions the customer may have could be answered, which helps decision making.

Product Staging

The e-tailer should carry a vast assortment of products. Vast assortment is precisely the distinctive advantage of e-tailer sites, as the case of Amazon demonstrates. If the e-tailer is an aggregator of brands from different brand owners, then the site should carry all of the major brands. If the e-tailer is selling only the house brand, then the brand should have adequate line breadth.

Next, the product information should be presented comprehensively and organized well. It should be possible to filter the alternative brands by multiple criteria and sort out the resulting collection hierarchically. Also, 360-degree views of the merchandise should be offered. This will reduce the felt need to examine the products physically in offline stores.

Physical stores are now offering virtual product trials. For example, you can see how the product will look on your body without actually wearing it. Also, stores are experimenting with various approaches to enhance the shopper experience. One example is Timberland Stores in the USA. Timberland, USA has brought its fitting room with a VR (virtual reality) mirror experience to its window display. Walking on the sidewalk, you see this window display. Come closer and face the window. The camera in the mirror scans your whole body so you see yourself in the mirror, except that your mirror double is wearing different clothes—clothes that the store sells. Using a touchscreen menu, you can choose some other set of clothing. You needn't tell the mirror your size; it already knows and dresses you up in the correct size. You can order it right from the display window on the sidewalk and then pick up the merchandise from the store.

And on Instagram, L'Oréal Paris lets you apply its nude lipstick (Les Nus by Color Riche) on your photo that the brand's lens takes using your phone's camera. This allows you to view how the lipstick color will look when you wear the real thing on your real lips. Going forward, the e-tailer sites will have to explore ways of enriching the shopper's product trial experience so that the shopper does not feel the need to examine the product in a physical store.

Fast-fulfillment and Cost Sharing

Most shoppers come to the e-tailer (in preference to physical stores) for time convenience and to find better prices. E-tailers save on the costs that they would have incurred had they been running a physical store. With those savings in their favor, e-tailers should therefore be able to absorb the shipping costs. Also, large e-tailers are able to negotiate favorable, low shipping rates with carriers. Small e-tailers should join shipping cartels to obtain shipping economy rates and then absorb the rates.

Time in transition is another big factor. So, the e-tailers should try to minimize the transit time. The customer should be offered multiple options so they may choose the transition duration that best meets their need. Total time for the merchandise to be delivered comprises two components: Time to package handover to the courier and time in transit. The former time is entirely within the control of the e-tailer, so they should set up efficient packing and order fulfillment operations. To reduce the second component, e-tailers should consider establishing regional warehouses. Amazon is a role model for that; of course, Amazon's scale makes it economically viable.

It is at the checkout stage that a large proportion of carts are abandoned, most often due to the total price shock. Many e-tailers attempt to prevent this by offering a discount coupon code near the checkout, or offering free shipping.

Trust Builders

Perceived risk is a major hurdle to customers completing the transaction. Merchants should make it a priority to fight this barrier with all their might. They should feature what are known as *trust builder tokens*. First the site should host on a secure web host platform, which is indicated by the site address beginning with https:// (where s stands for secure). A trust-seeking URL (universal resource locator) should also display a lock icon next to it, signifying security. An important trust builder is near the payment button, which says "secure" and shows an icon from the vendor of that security platform. Other trust builders are "Satisfaction Guarantee" stamp and offer of free returns and refunds.

Social Proof is another trust builder. Social proof consists of telling shoppers that others have bought the product and are satisfied. A simple tool is to offer product reviews, in numerical ratings and also in textual commentary. Also, a dynamic view of the number of other shoppers currently looking at the product is another indicator of the item's or merchant's credibility. Also, an informative (and free of bragging) "About Us" page helps a lot. Providing a physical address for company also helps. Keep in mind that transparency builds trust.

Adding your social media accounts on your commerce web sites also allows visitors to verify your presence on multiple sites and also check out that you have a brand following. In the same vein, display clearly how customers can contact you. Many firms require customers to fill in a form which gets submitted to an invisible email address. This not only does not build trust but it also irritates customers for having to do extra work. Instead, an 800 number should be clearly displayed as should be an email clickable button. In Eastern countries, customers have to trust the Website before they will even begin to shop, and Eastern Websites establish such credibility by prominently featuring pictures and biographies of company executives.

Cart Recovery

The last action is the recovery of the abandoned cart (Totka, 2019; Thomson, 2021). Here, two broad solutions are currently available from vendors:

1. Abandoned cart emails: If a user left an email, send them an email with an offer or a coupon code. Usually, this email is sent out an hour later and then again one day, 3 days, and 7 days later.
2. Abandoned cart retargeting. Place an ad pixel on your checkout page. Then you are able to target them with your ad on Facebook, Twitter, etc. (i.e., it is not necessary to have email address) (Goic, Rojas, Saavedra, 2021; Orlic, 2016).

Retargeting takes two forms: offsite and onsite. Offsite happens when you reach them on social media after they have left your site. Onsite are prompts or nudges or incentives offered to the shoppers while they are still on your site and might be about to leave. Also called *exit pop-ups*, these are overlays that are triggered while the customer is browsing. According to SaleCycle, abandonment emails enjoy a fairly high **open rate at 44.1%,** with **29.9% of clicks resulting in a purchase (Siterunners.com, undated).**

In the Wheel model, this "rescue action" responds to two barriers: total cost shock (that shoppers perceive at the checkout stage) and consumer personality trait of bargain seeking and deal propensity. Since these shoppers are attracted by a deal, this rescue action turns their hesitation or procrastination into a rush to get the deal.

THE SHOPPING CART ABANDONMENT PROBLEM AND STRATEGIC MANAGEMENT CHALLENGE

Most solutions recommended by consultancy firms are tactical, e.g., ten ways to reduce shopping cart abandonment (Kong, 2021; Merchant, 2021) or recovery email to curtail cart abandonment (Riserbato, 2021). From that practice, it is easy to visualize our framework as merely tactical management. In truth, they have strong strategic management commitments. Table 1 summarizes the required interface between the cart abandonment control strategies and strategic management response.

Before presenting this interface, it is useful to briefly review the characteristics of strategic management, i.e., what makes particular decisions and actions strategic management. Among the many such characteristics discussed in management literature (Crook et al. 2003; Grover and Saeed, 2004; Shrivastava and Souder, 1987; Srivastava and D'Souza, 2020;), the following six capture the core of strategic management.

Requires top management decisions

Business strategy entails choosing overall purpose of business and a choice of pathways to achieve them. It entails long term visions as to the scope and success level the firm must achieve on its life trajectory. As such strategy management decision are the purview and responsibility of top management.

Requires investments (money and non-monetary)

A business strategy and strategic management of it requires major investments in acquiring capital assets and human assets and building an infrastructure for business operations. Conversely, if a business action requires major investments, only top management must make those investment decisions.

Involves actions by multiple functions

Typically, a business strategy is organization-wide in scope. As such it requires participation and commitment by multiple functions within the organization.

Bolsters organizational capability

Some strategy scholars consider this a core goal of strategy: to bolster the organizations' capability to implement its strategic intent.

Offer long-term and enduring benefits

Short term benefits belong to tactical actions and operational successes. In contrast, strategic actions must produce long-term benefits to the firm.

Responds to external threat or opportunity

In Porter's framework, environmental forces are the main context surrounding a firm and the goal of the firm's strategic planning is to successfully respond to various environmental threats and to exploit environmental opportunities (Porter, 1979).

Abandonment Control Actions and Strategy Management Interface

In this section, the strategic management imperatives of cart abandonment control are discussed along the five action categories of Figure 3. See Table 1. It must be noted that the framework in Table 1 is new to the literature. Even the building blocks do not exist. Therefore, the framework is advanced as a conceptual juxtaposition of intuitively apparent imperatives of the abandonment actions, i.e., the demand on the resources and attention it will require from top management. The intuitive, face validity of these interfaces (as suggested in Table 1) must be sought, therefore, in one's personal reflections, not on any prior literature (which does not exist). Readers must ask, do the arguments in describing these interfaces make intuitive sense.

Before turning to these specific control actions, it is useful to consider the e-tailing business itself as a strategic imperative

In starting the e-tailer platform, the firm's leadership must make a major business strategy decision, namely, that it wants to become a player in the online retailing arena. Next, it must procure or recruit e-commerce expertise, i.e., hire technically qualified web designers and web managers. Also, e-tailing is a full-fledged business, and as such all functions within the business will necessarily be involved in the e-tail branch of the business. When the e-tailing operations have become successful, the business will have bolstered its own organizational capability. And since the e-tailing business is on the rise, e-tailing is a growth opportunity. Finally, a decision to launch an e-tail business can be a good response to the business threat of the big box e-tailers such as Amazon.

Thus, the intent to make e-tailing a viable business is, at the core, a strategy management act. Next, we turn to individual actions to curtail cart abandonments.

Table 1. Managing Shopping Cart Abandonment Requires the Firm's Strategic Management Response

	Requires top management decisions	Requires big investments (money and non-monetary)	Involves actions by multiple functions	Bolsters organizational capability	Offer long-term and enduring benefits	Responds to external threat or opportunity
OBJECTIVE **e-tailing as a viable business**	Intent to have an online presence	Procure e-commerce expertise	e-tailing is a multifunctional business by itself.	Business becomes omni-channel.	e-tailing is a growth opportunity.	Threat to physical retail business from Amazon-type online companies
STRATEGY **. Website Design for Easy Navigation**	Intent to succeed as an e-tailer.	Major investment in technology	e-tailing is a multifunctional business by itself.	Business becomes omni-channel.	e-tailing is a growth opportunity.	Threat to physical retail business from Amazon-type online companies
. Product Staging for meeting diverse consumer needs	Intent to succeed as an e-tailer.	Full range of product line will need more resources		Yes, Strategic sourcing, procurement, Inventory management, Web design.	Yes. Capture customers of diverse needs.	Match the assortments of multiple physical stores.
. Fast Fulfillment and Cost sharing	Intent to succeed as an e-tailer.	Yes, invest in fulfillment infrastructure	Warehouse management, logistics, customer service, cost accounting.	Stronger fulfillment capability	Sustaining the customers' patronage	Yes, neutralize the physical stores' shipping cost and immediacy advantage.
. Trust Builders	Authenticity and transparency must become senior leadership ethic	Invest in online security systems;	The culture of becoming trustable must prevail across functions.	Culture and corporate reputation are major soft assets.	Trust is the foundation of customer patronage of e-tailers.	Meet the competitive challenge of iconic and legacy online brands.
. Shopper Needs Skills and Personality	Need to become customer-centered is a top leadership choice.	Infrastructure and work processes will need redesign	Yes, from consumer research to operations to service logistics	Building a customer-responsive organization	Core driver of customer patronage and loyalty	Customer centricity is a tool of beating the competition.

Website design for easy navigation. Turning next to the specific Cart Abandonment Actions (CAA), the first action (Website design for easy navigation) is also the first and critical step for the strategic purpose of becoming and succeeding as an e-tailer. Next, major investment will be required in technology. A good and potent web site gives the organization a sound e-commerce platform. A good Web site keeps the customer coming back and therefore, it is a long-term sales success enabler. Entering the e-tailing business was, for many small physical retailers, a response to the emergence of big e-tailers like Amazon. Succeeding as an e-tailer means the firm has met the competitive threat.

Product Staging for meeting diverse consumer needs. Product staging will require considerable investment in sourcing bigger assortments of products and in acquiring visual and digital talents. Such investments will necessitate top management approval and an intent to succeed in e-tail business. When executed successfully, the firm will have gained expertise in multiple functions: strategic sourcing, procurement. Inventory management, Web design and visual design. With wider product assortments, the firm will be able to meet the needs of diverse customer base. This action also responds to environment in that it matches the assortment offered by its offline competitors as a group.

Fast fulfillment and cost sharing. Developing fast-fulfillment capability will require major investment in logistics and warehousing and as such will presuppose top management commitment. It will also involve multiple functions such as warehouse management, logistics, customer service, and to appraise the

feasibility of shipping cost control, cost accounting departments. Over the years, the firm will have built stronger fulfillment capability, and in turn it will gain a sustained customer patronage. The goal of this action was to neutralize, at least in part, the immediacy and zero shipping cost advantage of the physical stores. Thus, this action is good response to the competitive environment.

Building trust. Building trust is decidedly a top leadership initiative, as this requires building a culture of authenticity and transparency. At a more tangible level, the firm must agree to make a strategic investment in Web security systems. The culture of trust begins at the top but it must prevail across all functions and down all levels of the hierarchy. Also, culture and trust are major soft assets for the firm. The paramount importance of trust in e-tailing is undeniable as trust is the essential element in the customers' patronage. With trust, the firm is also able to meet the challenge of competitors with iconic brands with established reputation (e.g., Amazon).

Shopper Needs, Skills and Personality. This action calls for understanding the personalities and Web savviness of a firm's diverse customers. This requires the firm to become customer-centric, a top management initiative (Lamberti, 2013). To become customer responsive, the firm will have to invest in infrastructure and work processes, such as rapid response to customer problems in product use or in getting the order filled. Becoming customer centered will also entail multiple functions such as consumer research, operations, and post-sale service logistics. The firm will have built a customer responsive organization. Understanding diverse customer needs is a core driver of customer patronage (Kohli, 2017). And By catering to the customer's specific needs, customer centricity enables the firm to beat the competition.

Thus, all of the diverse actions to control and manage cart abandonment (per Figures 3 and 4) have a deep interface with the strategic management of the firm.

DISCUSSION

Limitations of the Present Study

The present study has three limitations: (1) We have built our list of factors of cart abandonment from literature limited to marketing journals. However, the topic has been researched also in computer and information management fields, and the scope of the paper excluded that literature. (2) We suggest trust (or lack of it) as an overarching factor that can discourage a customer from continuing to shop at every stage of the customer journey. However, trust is a concept that spans multiple fields from relationship marketing to brand loyalty to inter-business alliances to human resource management to social media posts by influencers to online ratings posted by brands, etc. (Fadol and Sandhu, 2013; Kim et al., 2008; Ozdemir et al., 2020). The paper is not informed by literatures in these varied contexts, by design limiting the scope of the present paper. And (3) it is reflective, based on a reading of empirical findings in the marketing literature but by itself, it lacks any empirical verification.

Directions for Future Research

The above limitations also suggest the directions for future research. First, future researchers must incorporate insights from research in computer and information sciences literatures. Second, insights that might exist in other contexts of business (e.g., human resource management, or inter-company partnerships) should be studies and their generalizability to the online shopping cart completion must be hypothesized. And third, each of the models and propositions entailed in Figures 1, 2, 3, and 4 must be empirically verified. These directions are elaborated below.

Research Suggested by Figure 1. While business managers are justifiably alarmed by the high abandonment rate, it is unhelpful to treat all abandonments as equal. Figure 1 assigns the abandonments along the four major stages of the customer journey funnel. To advance knowledge on this strategic problem, researchers need to disaggregate the total abandonment rate into abandonment by each stage. Next, the abandonment by each stage needs to be analyzed by individual factors attendant at that stage.

Research Suggested by Figure 2. Figure 2 breaks out trust by three loci. Research needs to identify the relative effects of these three types of trusts. Also, research needs to identify the effect of trust (or lack of it) in one locus on trust on the other loci. For instance, it would be reasonable to expect that trust in the e-tailer per se (a broader locus) will adversely affect trust in the transaction security (a more specific locus). At the same time the latter trust might feed back into overall trust in the e-tailer per se. Another topic is

whether trust in brand will be able to override trust in the e-tailer. That is, customers will not hesitate to buy a well-known national brand from a relatively unknown e-tailer.

Figure 2 also draws attention to a distinction between two types of drivers of trust: structural and performance-related. One question for future research is whether there is contingency between the two types; that is, will performance-related drivers help only when structural drivers are already in place. For example, if a company's "About Us" page is weak (i.e., not enough transparency as to who owns the site, who the company leadership is, how long the business has been in operation, etc.), then will client lists, certificates, and social media icon placement have any influence. The same question needs to be investigated for Trust in Products and for Trust in the Transaction.

Research Suggested by Figure 3. Figure 3 rearranges all potential drivers into five categories. A self-evident question is the relative roles of various drivers and whether the drivers act additively or in an "individually, a deal breaker" manner, Another important question for future research is the interactive effects of the five drivers. For example, whether customers will tolerate navigation confusion at the site of a more trusted business? Or whether customers who experienced no navigation frustration and who found it easy to decide at the product selection stage will be more accepting of the total costs and delivery time length during the checkout stage. Or whether shoppers with low digital skills will be less tolerant or will they instead be more accommodating of the navigation confusion/frustration.

Research Suggested by Figure 4. Figure 4 suggests major management actions to bolster the capability of the e-tailing platform. Each of these actions can be implemented in multitude of alternative ways. For example, Website designs could have many alternative look and feel, overall, and then many options for individual functionalities. Product staging could use alternative creative visualizations. Cost and time shocks could be pared down in more than one ways and to varying degrees. Thus, after strategic investment decisions have been made, the tactical implementation is ripe for field experimentation, so as to try alternative versions (i.e., A/B tests) to determine the more effective tactics.

Guide to Action by Businesses

While research directions suggested by Figures 1, 2, and 3 are largely to serve the interests of the academic researchers, research directions suggested by Figure 4 are of more interest to practitioners. Implementation of the suggested strategies to remove the barriers will take major investments, and it will help to simultaneously test at least two versions of any suggested action.

Also, while future research is suggested in order to achieve further theoretical clarity and support for the models, the models in Figures 1 to 4 are ready to serve as guides to executives. For example, managers should track at each of the four stages in the funnel model (Figure 1). Depending upon the stage at which an e-tailer might be losing most customers, the relative urgency of the remedial action would become apparent. Or according to Figure 2, practicing managers should track shoppers' trust level in respect of each of the three loci. When structural and performance-related trust builders are installed, with longitudinal surveys, improvement in trust levels should be tracked.

CONCLUSION

From a number of industry reports, it is clear that millions of online shoppers abandon their shopping carts without completing their purchases. For example, a Statista December 2021 report cites 80% of the shopping carts abandoned worldwide, across industries, with a high of 89.1% in automotive; and among the industries included, the lowest was groceries but it still was a high proportion of 63% (Coppolla, 2021). Shopify.com cites a Baymard Institute estimate of 69.5% cart abandonment rate (Dopson, 2021). Naturally, this high rate has drawn concern and attention both from the consulting industry (e.g., Kong, 2021; Optimizely, 2021) and from academic researchers (Kukar-Kinney and Close, 2010; Kapur and Vij, 2021). However, a gaze merely at the overall abandonment rate is myopic. What is needed is a breakdown of the overall rate by the stage at which it occurs. This need to disaggregate the overall rate into its parts by decision stage has not been suggested in prior literature reviewed here. The conceptual models advanced in the present paper address this gap.

While customer journey funnel has existed in the field for quite some time, the present paper uses it to conceptually outline the possible drivers along the funnel stages. With the funnel as the organizing tool (Figure 1), it becomes possible to also isolate the relevant drivers specific to a particular instance of

abandonment. In Figure 3 and 4, the drivers are organized in yet another schema—i.e., not by the funnel stage but by the conceptual category, no matter at what funnel stage they occur. The value of this schema is that these categories (Figure 3) call for their own specific remedies (Figure 4). When actual customer journeys are tracked along these conceptual categories, managers will know what barrier-removers to install or implement first, in an order of priorities.

Online shopping cart abandonment is a big revenue loser for e-tail businesses. In order for e-tailers to stop this huge loss, they need to understand what kind of consumer experiences and e-tailer features inhibit shopper journeys to completing a purchase and instead lead them to abandon the shopping cart. In this paper, we have laid out a comprehensive list of the e-tailer features that annoy the shopper or otherwise cause them to leave, mapping these reasons alongside their customer journey. We have identified three loci ("facets") of distrust or trust risks and proposed possible trust builders for e-tailers to adopt and feature. Next, to organize managerial thought and action strategically, we have proposed a "wheel" model of five drivers of abandonment, and, correspondingly, five strategic rescuers.

Although the models proposed here are conceptual and are in need of empirical verification by academic researchers, their intuitive appeal and implicit and explicit action guidance as outlined above make them a useful tool for business strategy in their present form.

Our action proposals can serve future research, both by academics to test for their efficacy and interactive relationships empirically and by managers in A/B tests of innovations and experiments in practice.

REFERENCES

Awad, N. F., and Ragowsky, A. (2008). Establishing trust in electronic commerce though online word of mouth: an examination across genders. J. Manag. Inform. Syst. 24, 101–121. doi: 10.2753/mis0742-1222240404

Awasthi, Brijesh; Mehta, Masuma (2021) Online Shopping Intentions of Generation X, Y and Z Consumers During the Covid-19 Pandemic in India. IUP Journal of Brand Management., Vol. 18 Issue 3, p45-56.

Banerjee, Sudeepta; Vidyasagar, T. J. (2021), Scale Development for Analyzing Impact of Various Risk Dimensions on Online Shopping Intensions amongst Indian Youth. International Management Review. Special Issue, Vol. 17, p29-39. 11p.

Bell, Lynne, McCloy, R., Butler, L., and Vogt, J. (2020), "Motivational and affective factors underlying consumer dropout and transactional success in eCommerce: An Overview, Frontiers in Psychology, Online.

Brown, E. (2015), "Online Shopping Cart Problem – Why & How to fix Cart Abandonment," MaxTraffic.com.

Bulsara, Hemantkumar P.; Vaghela, Pratiksinh S. Scholedge (2020) Understanding the Role of Trust in Online Shopping Intention for Consumer Electronics Products. International Journal of Management & Development. 2020, Vol. 7 Issue 3, p47-58.

Copolla, Daniela (2020), Shopping cart abandonment rate worldwide 2020, by industry, dated Dec 10, 2020. Statista.com (DOA: May 11, 2021)

Copolla, Daniela (2021), Online shopping cart abandonment rate in selected industries in March 2021.) Statista. Dec. 20. https://www.statista.com/statistics/457078/category-cart-abandonment-rate-worldwide/ (DOA: December 30, 2021.)

Chang, M. L., and Wu, W. Y. (2012). Revisiting perceived risk in the context of online shopping: an alternative perspective of decision-making styles. Psychol. Mark. 29, 378–400.

Chau, Patrick Y.K., Paul Jen_hwa Hu, Bill L.P. Lee, and Anson K.K. Au (2007), Examining customers' trust in online vendors and their dropout decisions: An empirical study, Electronic Commerce Research and Applications, 6, 171-182.

Chevalier, Stephanie (2021), Retail e-commerce sales grew worldwide during COVID-19, Statista, July 7, 2021. https://www.statista.com/topics/871/online-shopping/

Cho, C.H., Kang, J., and Cheon, H. J. (2006). Online shopping hesitation. Cyberpsychol. Behav. 9, 261–274.

Cho J (2004)," Likelihood to abort an online transaction: influences from cognitive evaluations, attitudes, and behavioral variables," Information & Management, 41: 827-838.

Close, A. G., and Kukar-Kinney, M. (2010). Beyond buying: motivations behind consumers' online shopping cart use. J. Bus. Res. 63, 986–992. j. bus res.2009.01.022

Cornfield, C. (2021), Designing Customer Journeys for the Post-pandemic World, Harvard Business Review Digital Articles, 5/6/2021, pp. 1-7.

Crook, T.R. , Ketchen, D.J., Snow, C.C. (2003). Competitive edge: A strategic management model. The Cornell Hotel and Restaurant Administration Quarterly. 44(3), 44-53. https://doi.org/10.1016/S0010-8804(03)90269-2.

D'Astous, A. (2000). Irritating aspects of the shopping environment. J. Bus. Res. 49, 149–156. doi: 10.1016/S0148-2963(99)00002-8

Dopson, E. (2021). 30+ Shopping Cart Abandonment Statistics (and Strategies for Recouping Lost Sales). June 23. https://www.shopify.com/blog/shopping-cart-abandonment (DoA: Dec. 30, 2021.

Erdil, M. (2018). Factors affecting shopping cart abandonment: pre-decisional conflict as a mediator. J. Manag. Mark. Logist. 5, 140–152. doi: 10.17261/ pressacademia.2018.845.

Esho, E. and Verhoef, G. (2021), What Influences Online Shopping in Nigeria: Trust or Website Quality? African Journal of Business & Economic Research. Vol. 16 Issue 3, p155-175.

Fadol, Y.Y. and Sandhu, M.A. (2013), "The role of trust on the performance of strategic alliances in a cross-cultural context: A study of the UAE", Benchmarking: An International Journal, Vol. 20 No. 1, pp. 106-128.

Goic, Marcel; Rojas, Andrea; Saavedra, Ignacio (2021). The Effectiveness of Triggered Email Marketing in Addressing Browse Abandonments In Journal of Interactive Marketing. August 2021 55:118-14

----------, and Anne L. Roggeveen (2020) "Understanding Retail Experiences and Customer Journey Management," Journal of Retailing, 96 (1, 2020) 3–8.

Grover, V., and Saeed, K.A. (2004). Strategic orientation and performance of internet-based businesses. Information Systems Journal. 14(1), 23-42.

Hall, Sharon H. (2021), "eCommerce cart abandonment demystified," Jilt, March 19, 2021.

Han, M. C., and Kim, Y. (2017). Why Consumers hesitate to shop online: perceived risk and product involvement on Taobao. Com. J. Promot. Manag. 23, 24–44. doi: 10.1080/10496491.2016.1251530

Hasan, B. (2016). Perceived irritation in online shopping: the impact of website design characteristics. Comput. Hum. Behav. 54, 224–230. doi: 10.1016/j.chb. 2015.07.056

Hossain, Afjal; Uddin, Md. Hasan; Islam, Imranul. Abhigyan. (2021) Drivers for Online Buying Behaviour in Bangladesh Apr-Jun2021, Vol. 39 Issue 1, p22-31

Huang, G. H., Korfiatis, N., and Chang, C. T. (2018). Mobile shopping cart abandonment: the roles of conflicts, ambivalence, and hesitation. J. Bus. Res. 85, 165–174. doi: 10.1016/j.jbusres.2017.12.008

Indiani, N. L. P., and Fahik, G. A. (2020). Conversion of online purchase intention into actual purchase: the moderating role of transaction security and convenience. Bus. Theory Pract. 21, 18–29. doi: 10.3846/btp.2020.11346.

Kapur, Anuj Pal, and Madhu Vij (2021), "Following You Wherever You Go: Mobile Shopping 'Cart-checkout' Abandonment," Journal of Retailing and Consumer Services, 61, 102553

Kim, D.J., Ferrin, D.L. and Rao, H.R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. Decision Support Systems, Volume 44, Issue 2, Pages 544-564. ISSN 0167-9236, https://doi.org/10.1016/j.dss.2007.07.001.

Kohli, A.K. (2017). Market Orientation in a Digital World. Global Business Review. 18(3_suppl):S203-S205. doi:10.1177/0972150917700769

Kong R. (2021), How to Decrease Ecommerce Cart Abandonment and Improve Your Conversion Rates (+ Increase Your Revenue). https://www.bigcommerce.com/blog/abandoned-carts/#top-reasons-for-shopping-cart-abandonment

Kukar-Kinney. M. and Close. A.G.(2010): The determinants of consumers' online shopping cart abandonment. Journal of academy of management science. 38. 230-240.

Lamberti, L. (2013). Customer centricity: the construct and the operational antecedents. Journal of Strategic Marketing. Volume 21, 2013 - Issue 7 , 588-612. https://doi.org/10.1080/0965254X.2013.817476

Lee, B. K., & Lee W. N. (2004). The effect of information overload on consumer choice quality in an on-line environment. Psychology and Marketing, 21, 159-183.

Lemon, K. and Verhoef, P.C. (2016), Understanding Customer Experience Throughout the Customer Journey, Journal of Marketing, November, Vol 80, 69-96.

Lepkowska-White, E. (2004). Online store perceptions: how to turn browsers into buyers? J. Mark. Theory Pract. 12, 36–47. doi: 10.1080/10696679.2004.11658523

Merchant, R. (2021). 10 ways to reduce shopping cart abandonment in 2020. Cloudways.com https://www.cloudways.com/blog/shopping-cart-abandonment/

Mittal, Banwari (2005), Next stop, unravel: The tangled web of e-consumer research, Marketing Theory, 5(1), 125-135.

_____ (2016), The maximizing consumer wants even more choices: How consumers cope with the marketplace of overchoice, Journal of Retailing and Consumer Services. Vol. 31, p361-370.

Mittal, B. (2016b), "Psychographics of comparison shoppers", Journal of Consumer Marketing, Vol. 33 No. 1, pp. 20-31

_____ (2017). Facing the Shelf: Four Consumer Decision-making Styles. Journal of International Consumer Marketing, Vol. 29 Issue 5, p303-318

Moore S and Mathews S (2006) An exploration of online shopping cart abandonment syndrome - a matter of risk and reputation. Journal of Website Promotion, 2(112): 71-88.

Morgan, Blake (2020) More Customers Are Shopping Online Now than at Height of Pandemic, Fueling Need For Digital Transformation, Forbes magazine.

Mosteller, J., Donthu, N., and Eroglu, S. (2014). The fluent online shopping experience. J. Bus. Res. 67, 2486–2493. doi: 10.1016/j.jbus res. 03.009.

Ozdemir, S., Zhang, S., Gupta, S. and Bebek, G., 2020. The effects of trust and peer influence on corporate brand—Consumer relationships and consumer loyalty. Journal of Business Research, 117, pp.791-805.

Optimizely (2021) How to reduce shopping cart abandonment. https://www.optimizely.com/optimization-glossary/shopping-cart-abandonment/

Orlic, Matt (2016), "10 Ways to reduce Cart Abandonment and Recapture Customers for 3Commerce, Semrush.com Nov 18.

Pappas, N. (2016). Marketing strategies, perceived risks, and consumer trust in online buying behaviour. Journal of retailing and consumer services, 29, 92-10

Park, C.-H., and Kim, Y.-G. (2010). Identifying key factors affecting consumer purchase behavior in an online shopping context. Int. J. Retail Distrib. Manag. 3112, 16–29. doi: 10.1108/09590550310457818

Poddar A, Donthu N, Wei Y. (2009) Web site customer orientations, Web site quality, and purchase intentions: the role of web site personality. J Bus Res;62(4):441–50.

Porter, M. E. (1979), "how competitive forces shape strategy", harvard business review, may 1979 (vol. 57, no. 2), pp. 137–145.

Punj, G., and Moore, R. (2009) information search and consideration set formation in a web-based store environment. j bus res;62(6):644–50.

Rajamma r.k., paswan a.k. and hossain m.m. (2009) "why do shoppers abandon shopping cart? perceived waiting time, risk, and transaction inconvenience", journal of product & brand management, vol. 18 issue: 3, pp.188-197.

Riserbato, R. (2021). The 11 best abandoned cart emails to win back customers. Blog, Hubspt.https://blog.hubspot.com/marketing/abandoned-cart-email

Rogge, N. (2017). maximizing, choice freedom, and duration judgments in choice making. journal of consumer behaviour, vol. 16 issue 6, p.125-138.

Serrano (2020), "top 10 reasons (and solutions) for shopping cart abandonment," barilliance.com, august 5, 2020.

siterunner.com: https://sitetuners.com/blog/understanding-shopping-cart-abandonment/

Shrivastava, P. and Souder, W.E.. (1987). the strategic management of technological innovations: a review and a model. journal of management studies. 24(1), 25-41. https://doi.org/10.1111/j.1467-6486.1987.tb00445.x

Srivastava, S. and D'Souza, D. (2020), "An empirical examination of the relationship between managerial strategic thinking and absorptive capacity of the organization", Journal of Strategy and Management, Vol. 13 No. 1, pp. 51-71. https://doi.org/10.1108/JSMA-05-2019-0077

Sondhi, N. (2017). Segmenting & profiling the deflecting customer: understanding shopping cart abandonment. Proc. Comput. Sci. 122, 392–399.

Song, J.-D. (2019). A study on online shopping cart abandonment: a product category perspective. J. Internet Commerce 18, 337–368. doi: 10.1080/15332861. 2019.1641782

Tang, H., and Lin, X. (2019). Curbing shopping cart abandonment in C2C markets—An uncertainty reduction approach. Electron. Markets 29, 533–552. doi: 10.1007/s12525-018-0313-6.

Thompson, Nathan (2021), "14 Abandoned Cart Email Examples Proven to Boost Revenue," on OptinMonster.com, March 3, 2021.

Topaloğlu, Ceren (2012), Consumer motivation and concern factors for online shopping in Turkey.

Asian Academy of Management Journal. Vol. 17 Issue 2, p1-19. 19p.

Türkmen, Ahmet (2020), COVID-19's Effects on Turkish Online Retail Consumers' Retail Website Visiting Behavior, Gaziantep University Journal of Social Sciences, Vol 19, Iss COVID-19 Special Issue, Pp 767-779 (2020); Gaziantep University.

Totka, Megan (2019), "10 Ways to Reduce Shopping Cart Abandonment," Business.com, June 21, 2021.

UNCTAD (2020), COVID-19 has changed online shopping forever, survey shows.

Weng Marc Lim, Weng Marc (2017) Untangling the relationships between consumer characteristics, shopping values, and behavioral intention in online group buying, Journal of Strategic Marketing, 25:7, 547-566