What Constitutes Consumer “E-Shopping”? 
Behaviors and Vehicles in the US and China

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Background and Objectives

Consumer e-shopping has grown dramatically over the last decade. At the turn of the 21st century, e-shopping was seen as the domain of innovators and early adopters (e.g., Goldsmith, 2001); today it is mainstream in the US and elsewhere. In the US, total consumer retail internet purchases are estimated at $226 billion in 2012, and expected to increase by 45% to $327 billion by 2016, according to research conducted by Forrester Research (www.internetretailer.com/2012/). China has also witnessed high growth rates. Walters, Kuo, Jap, and Hsu (2011) project exponential growth through 2015. China already has the second largest population of online shoppers (145 million), second only to the US (170 million). China has surpassed the rest of the world in regard to its population of Internet users (457 million, more than the US and Japan combined). As these authors suggest, this enormous Internet population provides the foundation for further expansion of e-shopping.

Given the monetary value of the transactions involved of approximately $308 billion in retail consumer sales for the two countries (http://www.bbc.co.uk/news/business), its role in the diffusion of new products and services and, indeed, of global consumer culture (Mooij, 2004), among many other reasons, the dynamics of e-shopping have captured the interest of scholars and practitioners alike in business and social science. Further, e-shopping is of great interest to scholars and practitioners not only in its own right, but also because it is used as a test bed on which to study even more general issues, e.g., measurement challenges in cross cultural comparison of attitudes and values (e.g., Blake, Murcko, Neuendorf, & Allen, 2009; Blake & Neuendorf, 2004; Blake, Shamatta, Neuendorf, & Hamilton, 2009;).

But what precisely is “consumer e-shopping” behavior? What are the vehicles by which this behavior takes place? How do the behaviors link to the type of vehicle involved? Initial studies of e-shopping have addressed consumers’ purchasing and browsing for products and services at particular Internet sites sponsored by manufacturers and distributors. Soon other types of Internet shopping sites, such as consumer-to-consumer (C2C) and third party information (e.g., price aggregators, blogs), gained prominence. A wide range of electronic technologies became involved, such as apps for mobile phones and game consoles. Products and services are no longer limited to physical objects sent for offline
consumption. Consumers can use unsolicited information coming from pop-ups and banners on other sites they frequent. Social media took on important roles in the information search and purchase process. Illustratively, Facebook “friends” shared product experiences and encouraged each other to try a product, thereby becoming part of the browsing process for many. The e-shopping world has become more diversified and complex.

Currently, there is not a widely accepted comprehensive definition of e-shopping which specifies the forms of behaviors included and which distinguishes among the pertinent electronic vehicles. Yet such a comprehensive definition of behavior and vehicle taxonomy is sorely needed by scholars and practitioners. First, how can viable theories of the determinants/dynamics/consequences of “it” be developed for scholars, how can best practices be delineated for practitioners without identifying what “it” is and is not? Further, in the increasingly global economy, the nature of consumption differences among nations is of interest to researchers (e.g., Mooij, 2004). A workable definition/taxonomy is needed to systematically assess the nature of cross-national or cross-cultural differences in purchasing and consumption behavior. The forms of behavior and the types of shopping vehicles can provide the dimensions on which comparisons can be made.

Importantly, a comprehensive definition/taxonomy can provide the framework to organize the voluminous e-shopping literature by establishing boundaries for generalizing empirical studies. For instance, consider research to identify site features consumers use to judge the performance of e-shopping sites. Valuable contributions were made by investigators when they devised standardized scales to do this. These standardized scales, though, were developed without systematic attention to the forms of shopping behavior displayed by consumers in the standardization sample or to the generalizability to other types of sites not covered in the standardization study. Loiacono, Watson, and Goodhue (2007) devised WebQual and Huang (2005) the Web Performance Scale for identifying features whose performance can impact the success of a commercial site. Torkzadeh and Dhillon (2002) constructed an instrument to determine how well a shopping site is performing in regard to particular “fundamental” and ”means” objectives. All three instruments were derived from factor analyses of user ratings of site performance on listed features. The
12 dimensions observed by Loiacono et al. (2007), the two of Hwang (2005), and the nine total
dimensions of Torkzadeh and Dhillon (2002) are not similar in dimensionality or feature composition. To
what degree are differences among findings traceable to the types of sites and/or the form of shopping
behavior which users are considering? To which types of sites and shopper intentions (e.g., information
search or making a purchase online) does a scale pertain?

The objective of this article is to propose a comprehensive definition of behavior and its associated
taxonomy of vehicles as a tool for research and practice. We illustrate the vehicles in the two largest
national populations of e-shoppers (Walters et al., 2011), the US and China, and suggest several
considerations in using this conceptual framework.

**Point of Departure**

The bulk of this literature has approached the issue from a perspective we label “vendor marketing-
consumer consumption.” The interest has been in determining: what leads people to shop online rather
than offline, what draws people to one commercial site rather than to another, and, importantly, what
marketers can do to influence consumers’ online purchasing. More recently, research has expanded to
include the role of sites other than those devoted strictly to commercial vendors, such as social media and
video games. In light of the above developments, we feel that the current “vendor marketing-consumer
consumption” paradigm is now unnecessarily limited. We suggest what we judge to be a more viable
perspective for understanding consumer e-shopping; we label it “consumer communication/consumption.” The term is intended to convey the idea that consumer awareness of products/services is a function not simply of vendor initiated advertising and other communications to
passive consumers, not only of consumer initiated browsing activities on vendor sites, but also of
interactions among people which are not principally centered around products/services. Included are not
only purchases made online for later offline consumption (such as products shipped to a consumer’s
location), but also purchases made online for consumption while actively online or downloaded for later
consumption (such as movies or music).
As technology evolves, new devices are being invented by which consumers can e-shop. To be useful over time and over technological devices, the definition of e-shopping as a behavior should not be tied to use of a specific device. Hence, the definition of e-shopping behavior and the taxonomy of vehicles should be separate.

E-Shopping Defined

Essentially, e-shopping behavior is: a) intentional or unintentional acquisition of information about products, services, or other commercial entities (“products”) from interactive electronic (“online”) sources; b) selection of a product for virtual or offline use; or c) the virtual consumption of that product. E-shopping can be a consumer’s primary goal or can occur when a consumer is focusing principally upon other goals (e.g., socializing). It occurs not only on sites dedicated to sales/marketing, but also on sites focused upon other objectives.

More specifically, we propose that a particular incidence of e-shopping behavior is a combination of what can be termed the “G-A-SS Axes”: Goals, Actions, Site Sources. The three address the questions: “What does one want to do?” “What is one actually doing?” “With whom is one doing it?” There are seven “categories” or types of Goals, five of Actions, and five of Site Sources. To permit greater specificity, unlike prior distinctions, browsing-purchasing, B2C (business to consumer) - C2C (consumer to consumer), and online-offline consumption are treated as categories of an axis rather than separate dimensions or domains. A given incidence of e-shopping is an embodiment of one or more of the 175 potential combinations, i.e., a particular Goal of a particular Action toward a particular Source. Far from all of the 175 currently exist.

At first glance, 175 potential combinations may seem unwieldy. But, first, given the very many intentions, forms of behavior, and venues encapsulated in popular uses of the terms “online-“ or “e-shopping,” the proposed framework is a radical condensation to what our assessment of the professional and academic literature suggests are the critical dimensions and types. Second, a less specific classification may undermine the value of the schema for establishing the generalizability of research findings. And, third, it is anticipated that many applications of the framework will be far simpler, looking
at differences among categories on a given axis with the other two axes held constant. Illustratively, a researcher would compare shoppers with the Goal of purchasing for offline consumption (Goal b) with those actively seeking entertainment (Goal d) in regard to incidental information acquisition on a C2C site (site Source b).

**Goals**

Rodgers, Chen, Wang, Rettie, and Albert (2007) posit four “web motivations”: research (information acquisition), communication (socialization), surfing (entertainment), and shopping. Reviewing the motivations mentioned in the literature specifically for using sites on which some form of shopping can occur, in our view we must differentiate still further. We propose that the consumer’s principal intent involves one or more of seven goals:

a) Active product information search, e.g., searching for a movie theater;

b) Buying, leasing, renting (“purchase”) products for offline consumption, e.g., buying auto tires;

c) Product purchase/use for online consumption, e.g., leasing an income tax program;

d) Own entertainment, e.g., playing a game or movie for excitement;

e) Escape/relaxation, e.g., watching a video to distract from stressful concerns;

f) Socializing, e.g., with “friends” on Facebook;

g) None of the above, i.e., no salient shopping intent (e.g., emailing a co-worker when a pop-up ad appears) or an idiosyncratic goal (e.g., teaching a great-grandmother Internet use).

Illustratively, as discussed later, the appeal of a site feature may depend on one’s intent. For example, a site’s providing colorful animation may have more appeal when a consumer is looking for entertainment (Goal d) or socializing (Goal f) than when it is for information search (Goal a) or purchase (Goal b or c).

**Actions**

Behaviors constituting e-shopping are:

a) Intentional information acquisition, e.g., browsing for product information;

b) Incidental information acquisition, e.g., learning options available on a BMW when playing Gran Turismo;
c) Selecting products for offline consumption, e.g., choosing an auto tire;
d) Selecting products for virtual consumption, e.g., selecting music files;
e) Virtually consuming products, e.g., listening to music

Because they reflect different determinants, it is necessary to distinguish between intentions and actual behaviors (Fishbein & Ajzen, 1975), between online and offline consumption (e.g., Levin, Levin, & Weller, 2005), and between online information acquisition/browsing and purchase (Blake, Valdiserri, Neuendorf, & Valdiserri, 2006).

Site Sources

In our review of the professional and academic literature about where shopping can take place, we found that by far most references pertained to five Sources:

a) Sales/marketing organizations, e.g., manufacturers, distributors, political parties involving “traditional” B2C commerce;
b) Other consumers overtly engaging in C2C selling, e.g., selling an item on eBay;
c) Third party information sources, e.g., bloggers, price aggregators;
d) Other persons not overtly selling, e.g., friends complaining about a product on a social media site;
e) Intruders into sites of other Sources, e.g., pop-up ads on a news site.

Again, the importance of site features may depend on the Source involved, e.g., the value of features ensuring security of personal information may depend on one’s dealing with C2C/B2C vendors (Source a) or with third parties (Source c).

Exclusivity

Any e-shopping incident is complex and multi-determined. Accordingly, the categories on a G-A-SS axis are not necessarily exclusive. For example, Goals can overlap; within a single visit a person might intend to seek information, select an alternative, and consume it immediately online. One can also sequence behaviors with distinct G-A-SS profiles; for example, one might go to a manufacturer site for information, then to a social media site asking for friends’ product experiences, and then to a distributor site to purchase.
Vehicle Taxonomy

The term “e-shopping sites” was appropriate in the past when “e-shopping” was restricted to consumers visiting Internet sites sponsored by commercial entities in order to obtain information or make a purchase. In light of the rapid evolution of e-shopping as captured in the G-A-SS categories, however, a more specific and more comprehensive delineation of “Vehicles” is merited.

The following classes of online Vehicle are the loci where the above shopping behaviors occur. Each is illustrated by a US and/or Chinese site address when applicable. When the information is ambiguous about appropriate Chinese sites, a Chinese example is not presented. When anecdotal observation, empirical evidence, or expert judgment about Chinese e-commerce (e.g., Yang, 2007, 2011a, 2011b, 2012) imply substantial national differences, it is noted. Due to the relative dearth of systematic empirical evidence and to the complexity of the pertinent national differences, though, statements of national differences should be considered as broad hypotheses pending investigation.

A. Multi-Channel E-Commerce

1) Search engine. A website that indexes material on the internet and provides links to information as a response to a query. While popular in the US as a “starter” step in information search, it is far less popular in China.

US: google.com, yahoo.com, bing.com         CN: Baidu.com

2) Online marketplace. A type of e-commerce store in which product and inventory information is provided from multiple third-parties, and where transactions are processed by the marketplace operator. They can be highly-specialized (e.g., Etsy) or extremely comprehensive (e.g., Amazon). In China it is increasingly widespread.

US: ebay.com, buy.com         CN: taobao.com, jd.com, dangdang.com, vancl.com, m18i.com

B. Production and Distribution

3) Manufacturers’ website. A site for a person or organization that fabricates/offers products, often in one general category such as apparel or electronics.

US: nike.com, thenorthface.com, toshiba.com         CN: bango.com/, septwolves.com
4) Distributor’s website (online retailer). A site that sells an assortment of manufactured products exclusively from the manufacturers. This is distinct from an online marketplace in that there is no open platform for products to be sold from third-parties. In the US the brand name of a website typically has a corresponding brick-and-mortar establishment. These are more and more popular in China and are highly competitive.


C. Social Media

5) Social media site. A site where users communicate with one another, create content, and share both user-generated and user-collected media (pictures, videos, blogs, etc.) with other users. Content on these sites may include games, web applications, and personalized advertisements. These sites allow users to share product information in a less formal setting. Companies can also be involved by mounting pages providing information, exclusive deals, and links to their websites. Many incorporate “microblogging” (see No. 13) as a feature; thus a site like Twitter or Facebook would fall under both of these categories. China’s social media sites resemble the US’s; renren.com is like Facebook, weibo.com is like Twitter, and tudou.com is like YouTube.

US: facebook.com, myspace.com, twitter.com          CN: xiaonei.com, pengyou.com

D. Unsolicited Online Advertising

These often appear as banners and pop-ups.

6) Non-personalized advertisements. Standard advertisements that are not customized for the user (i.e., each viewer sees the same advertisements).

7) Personalized advertisements. Sometimes referred to as “targeted” or “behavioral” online advertising. As one uses online services and browses websites, these sites use collected information (search engines, page views, links that one clicks, the user’s location, or other similar data) to predict which ads will interest a particular user. These advertisements contain links to the vendor’s website. China’s are similar in nature to the US’s.

US: google.com, yahoo.com, facebook.com          CN: cn.yahoo.com
E. Information Presentation

8) **News and documentation.** Many websites could fit in this type of website to some extent; they are not overtly for commercial purposes. Included are: news websites, science websites, encyclopedias, business news websites, medical information websites, and university/college/school websites.

US: cnn.com, nationalgeographic.com, britannica.com, businessweek.com, webmd.com, calu.edu

CN: news.cn, baike.com, baidu.com, caijing.com.cn, doc88.com, wenku.baidu.com, docin.com

9) **Price engine.** A price comparison service that indexes prices of products from different retailers so consumers can compare prices of specific products across various brands. These sites do not sell products themselves. Customers may post reviews on specific products. This can involve price tracking tools such as price drop alerts or price history tracking. This is not popular in China, perhaps because China has more centralized online marketing with fewer price promotions.

US: Beatthatquote.com, Pricegrabber.com  
CN: qunar.com, ctrip.com

10) **Review sites.** A user-centered site on which consumers post product reviews. Some also contain aggregated reviews from professional critics. In China, user-centered sites are not as prevalent as in the US, but there are many expert review sites. Moreover, many Chinese general portal sites contain review sections. User reviews are likely to be posted on shopping sites, related message boards, or fan sites.

US: rottentomatoes.com, ratemyprofessor.com  
CN: pconline.com.cn, zol.com.cn

11) **Blogs websites.** Sites posting online diaries which may include discussion forums. Many bloggers use blogs like an editorial section of a newspaper to express their ideas on a wide range of issues, e.g., politics, religion, video games. Some bloggers are professionals paid to blog about a certain subject; they are usually found in news sites. Comparable blogs are found in China.

US: postsecret.com, downandoutchic.blogspot.com  
CN: blogcn.com, blog.sina.com.cn, log.163.com

12) **Forum websites/message boards.** A discussion site where people converse via posted messages. They differ from chat rooms in that messages are at least temporarily archived. As noted for No. 10, in China consumers’ reviews are often posted on message boards.

US: ask.com, answers.yahoo.com  
CN: tianya.cn, dzh.mop.com
13) **Microblogging.** Similar to traditional blogging, except the content is usually smaller in both actual size and the size of the files, e.g., there are usually character limits. These are the “what I’m doing right now” blogs. Many social media sites (No. 5) incorporate a form of Microblogging.

US: twitter.com, tumblr.com  
CN: weibo.com, t.qq.com, sohu.com

**F. Gaming**

14) **In-game advertising.** The inclusion of a brand or product in a video game that features other brands or products. These typically appear in the background and may be dynamic in-game advertising or ads that function through a player’s Internet connection and change depending on the player’s location or after a period of time (e.g., Barack Obama billboards in the video game *Burnout: Paradise* before the 2008 election). In-game ads may also be interactive, such as when users are allowed to use branded items in the virtual world.

US: Courtside advertising in *NBA 2K12*; car brands in *Gran Turismo*  
CN: Coca-Cola advertising in Warcraft China, Wanah advertising in QQ Huangxiang

15) **Advergaming.** Casual video games designed to promote a brand or product. These are almost always free and often appear on company websites. They are also produced in app form.

US: Life Savers games on Candystand.com; Friskies cat game apps on apple.com/itunes  
CN: toread.com.cn/

**G. Digital Media**

In China digital media products are fairly unregulated and unprotected compared to the US. It is easier in China for regular users to access pirated copies of content without payment.

16) **Pay-for content.** Paid access to content but without retaining permanent access to it. The consumers choose when their content “expires” (by not renewing their subscriptions, etc.).

US: newspapers (e.g., nytimes.com, Netflix.com)  
CN: xunlei.com, pptv.com

17) **Digital media stores.** Pay-for digital media that can be downloaded and saved to one’s computer to be accessed at any time.

US: apple.com/itunes  
CN: skycn.com, music.qq.com
18) Virtual goods. Non-physical objects purchased for advancement or use in online communities, or in online games. Examples in the US are buying avatar apparel and accessories on Xbox Live marketplace, or buying rare objects for World of Warcraft (us.battle.net/wow). In China, examples are buying accessories and apparel for a QQ avatar, or purchasing individualized background and gadgets for a personal social network page (e.g., Qzone, renren.com).

US: battle.net/wow/  CN: haowangjiao.com, 6780.com, dkjy.5173.com

19) Electronic rentals. Products or services where the software is made available for a limited time through a temporary license; the company predetermines when the content expires. The content is downloaded and consumed offline.

US: spss.com, ebooks.com, turbotax.intuit.com    CN: QQ VIP membership (vip.qq.com)

H. Mobile Marketing

20) Mobile “apps”. Software made for i-phones and other mobile devices. US examples are the Chipotle app for ordering food (chipotle.com), and the weather app for weather.com. Chinese examples are DoubanFM for music.douban.com, and Netease News for 163.com, mruan.com/, r02.cn/.

21) Text messages. Text messages sent by a company to consumer cell phones with product information; these texts include a link to the company’s website. Consumers register to receive these text messages either in-store or online. Dangdang.html in China and vanityclothing.com and earthfare.com in the US are examples.

I. Electronic Mail Marketing

22) User solicited e-mails. Advertisements/coupons delivered via e-mail to users who have opted in to receive them from a particular organization. One version is the “daily deal” which on a daily basis offers product discounts. Users do not have the ability to search or browse, they simply choose whether to accept the daily deal or not.

US: groupon.com, livingsocial.com, dailydeals.com

CN: dianping.com, nuomi.com, lashou.com, vipshop.com, shopin.net, cn.Englishtown.com
23) **Spam.** A form of e-mail marketing that sends identical unsolicited messages in bulk to numerous recipients.

**G-A-SS and Vehicle Selection Interface**

The G-A-SS categories and the Vehicle types are not independent.

1) First, a dominant goal can motivate the selection of a Vehicle, resulting in a disproportionate number of users of a given vehicle having a particular Goal and engaging in a particular Action. Illustratively, a comparatively high proportion of users of price engines (No. 9) or review sites (No. 10) would, we propose, be focused on active product information search (Goal a) and engage in intentional product information search (Action a).

2) Similarly, persons interacting with a given Site Source should tend to have a disproportionate number of people with particular Goals, be engaging in particular Actions, and to gravitate to particular Vehicles. For example, users interacting with other persons not overtly selling (Site Source d) would display incidental information acquisition (Action b), be looking to socialize (Goal f) or entertain themselves (Goal d), and would be logged on to a social media site (Vehicle 5).

Space limitations of the Journal preclude discussion of the many likely patterns. The existence and strength of the patterns are empirical questions yet to be investigated.

**Applications of the Framework**

Consider first the conceptual or theoretical implications of the above. As noted earlier, an important application of the framework is using it to establish the generalizability of empirical studies of e-shopping dynamics. We propose that empirical studies and practitioner listings of best practices are generalizable:

1) More closely when the instances of e-shopping represent the same category of Goals, of Actions, and of Site Sources. Hence, an investigation of shopping when one Goal (e.g., to purchase for online consumption) is dominant should be more generalizable to settings when that goal is dominant than to settings in which another Goal (e.g., to purchase for offline consumption) is dominant. Results of a study of shoppers engaged in intentional information acquisition (Action
a) should generalize to settings in which shoppers are intentionally acquiring information than to contexts in which shoppers are virtually consuming products (Action e). Also, observations of how shoppers behave on a site sponsored by a sales/marketing organization (Site Source a) should generalize to other contexts in which consumers are logged on to sites sponsored by sales/marketing organizations more closely than to when shoppers are interacting with third party information sources (Site Source c).

2) More consistently across the same type of Vehicle. Hence, how consumers behave on an online marketplace (Vehicle 2) should resemble how they act on another online marketplace more closely than how they operate with a price engine (Vehicle 9).

3) In regard not only to what attracts consumers to a shopping site (e.g., feature preferences), but also to perceived risk (e.g., Bart, Shankar, Sultan, & Urban, 2005), consumer innovativeness (e.g., Blake, Neuendorf, & Valdiserri, 2003, 2005; Goldsmith 2001) and other determinants of consumers’ behavior on a shopping site.

Turning to the methodological implications, the framework indicates that attempts to compare national or other populations in regard to e-shopping dynamics (e.g., Blake et al., 2009; Liao, Proctor, & Salvendy, 2009) should control or at least specify the particular type(s) of vehicle and which form(s) of shopping behavior (G-A-SS) are involved. For instance, it is suggested above that China and the US differ strongly in the popularity of price engines and manufacturers’ sites (Vehicles 9 and 3, respectively). Observed differences between China and the US may be due to respondents’ reacting to different vehicles instead of or in addition to different values, attitudes and other cultural factors (e.g., Mooij, 2004). Similarly, asking consumers to report their preferences for shopping site features (e.g., Blake, Hamilton, Neuendorf, & Murcko, 2010; Zhang & von Dran, 2002) should specify which Vehicles and Goals/Actions/Site Sources are relevant.

Research on e-shopping is extensive, but as yet not put in a coherently organized body. We feel that the framework presented here merits attention both as a basis to organize that body of knowledge and as a heuristic to suggest research to provide new insights.
References


