



Overcoming the Tyranny of 'Richness' and 'Reach'

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Abstract

Traditional shopping limits the number of shops the shopper is able to visit due to time and other cost constraints; the time spent traveling consequently leaves the shopper with less time to evaluate the product. This paper aims to provide an understanding of how the Internet diminishes the tyranny of the trade-off between information richness and the reach of alternative shops inherent in traditional shopping, as well as how it enables businesses to be more competitive. The theory of 'richness' and 'reach' was formulated by Evans and Wurster (1999) in the book *'Blown to Bits: How the Economics of Information Transforms Strategy'*.

Introduction

Shoppers traditionally and mainly go to retail stores to do their shopping. This requires the spending of time for travel and time in a store. The value of such travel and time costs varies by the opportunity cost of time for the individual. Going to the shop involves the concept of 'reach'. Because there are practical limits to the number of shops that a consumer could visit in order to look at the alternative products available for selection, there are limitations to 'reach'. 'Richness' refers to the quality of the information available to shoppers (as defined by accuracy, relevance, adequacy etc.), while 'reach' refers to the number of shops that they visit to compare product quality and prices. Within a certain period of time allocated for shopping, the larger the number of shops a shopper visits, the smaller the amount of information the shopper can elicit from any individual store and vice-versa. As Evans and Wurster (1999) state:

To the extent that information is embedded in physical modes of delivery, a basic law governs its economics; there is a universal trade-off between 'richness' and 'reach' (p. 23).

The Limitations of Traditional Shopping

Buyers engage in external search for problem solving purposes. External search can maximize satisfaction to consumers by providing the benefits of lower prices, preferred styles, higher quality, reduced risk and greater confidence (Neal et al 2002). However, this external search is limited by the trade-off between 'richness' and 'reach' present in traditional shopping. The trade-off between information richness and reach of alternative shops forces shoppers to search in a hierarchical manner, which limits their search capabilities. In terms of theoretical expectations, shoppers would begin their search by looking at high reach sources such as the Yellow Pages or Classified Ads, which offer contacts to many shops but little or no information about its products. The shopper then selects a few shops to visit to gain detailed information about the product before making the purchase. Evans and Wurster (1999) state that shoppers have to navigate their way from high reach/low richness information sources (such as a phone book) to high richness/low reach sources (such as the sales assistant; a sales assistant would offer a single customer richly detailed, interactive, and personalized information about his own limited range of wares).

The compromise between the "economics of information" and the "economics of things" described by Evans and Wurster (1999) makes it difficult for stores to display a large variety of products while giving customers the information they want to know about them. For instance, a bookstore may be unable to carry extremely large volumes of books due to the cost of inventory (economics of things). However, a smaller inventory would mean that shoppers have a lesser variety of books to choose from; the number of books in the store also serves as a list for informing customers about the number of books the store carries (economics of information).). As shown in Figure 1, searching in a hierarchical manner involves crawling along the richness/reach trade-off (Evans and Wurster 1999). As shoppers obtain higher informational richness, they lower their reach of alternative shops. This trade-off prevents shoppers from obtaining a high reach of alternative sources and rich product information, hence limiting their search capabilities.

Searching in a hierarchical manner takes time and effort, and risks a sub-optimal purchase. Due to the limited number of shops the shopper eventually visits before making the purchase, as a result of time and pecuniary cost constraints, it is very unlikely that the shopper is able to maximize satisfaction by obtaining the best deal in terms of price and quality. Evans and Wurster (1999) state that shoppers act with "bounded rationality": they make decisions that are sensible given the incomplete information that they possess and the high cost of getting better information. In other words, physical information channels result in asymmetrical and limited information flows that could cause sub-optimal customer choices leading to post purchase dissonance.

Implications on the benefits of online shopping

The benefits of online shopping stem from a weakening or elimination of the richness-reach trade-off, as explained in the preceding analysis. The Internet allows non-store shoppers to obtain both richness and reach without the tyranny of the trade-off. The weakening or elimination of the 'richness/reach' trade-off enables shoppers to browse through a large number of stores (a high level of 'reach') to gain a high level of product information (a high level of 'richness'). The hierarchical search process that is inherent in traditional shopping is no longer necessary with online shopping, saving the shopper time and effort, as shown in Figure 2. The constraint of "bounded rationality" in shoppers is consequently relaxed, as shoppers acquire an increased capability of more optimal problem solving in regard to their purchases.

Internet-based benefits

According to Evans and Wurster's (1999) formulation, the Internet permits a separation between the "economics of information" and the "economics of things" referred to previously. Amazon.com offers three million books 'located' on some 25 million computer screens ("economics of information") as compared to the average bookstore, which carries an average of 80,000 titles ("economics of things"). A similar separation is reported by Evans and Wurster (1999) in relation to Dell Computers. Dell's Internet site offers over 10 million configurations of the PC by letting the consumer permute hardware configurations, as compared to 20 configurations offered in the average computer superstore.

With the aforementioned separation, online retailers are able to offer a greater selection of products online as compared to in physical stores, while allowing better product navigation for shoppers. According to Sharma and Krishnan (2002), the Internet store can provide a larger inventory of products and sizes, and can virtually guarantee the availability of any type and size of merchandise. New advances in Internet technology such as electronic shopping navigators or 'shopping bots' assist shoppers in their product search by enabling the separation of the economics of information and the economics of things. These 'shopping bots' take a query, visit shops that may have the product sought, bring back the results and present them in a consolidated compact format that allows comparison shopping (Rowley 2000). Examples of popular 'shopping bots' are Mysimon.com and Netmarket.com.

The weakening of the richness-reach trade-off also manifests itself in the ability of shoppers to browse and purchase goods on the Internet anytime, unlike traditional brick-and-mortar storefronts that have fixed opening hours. The Internet operates 24 hours a week, seven days a week, and can be accessed anywhere in the connected world. Shoppers can also purchase goods that are unavailable at their location, as the Internet allows shoppers to make purchases from vendors in other locations around

the world.

Shopper-based benefits

Shopping using the Internet by overcoming the trade-off between 'richness' and 'reach' saves shoppers time and pecuniary costs of traditional shopping; shoppers can shop from the comfort and convenience of home, and need not travel to physical storefronts.

As compared to traditional shopping, online shopping provides a greater reach of information that benefits shoppers in terms of reduced search costs. This could be a major saving for time-poor consumers, depending on their opportunity cost of time. Shoppers are able to locate many vendors online using search engines and websites designed to navigate shoppers, view detailed product information from a variety of vendor's websites, compare price and quality among different vendors, and make purchases online. Shoppers are able to find the lowest prices due to the wider reach of information facilitated by the Internet and by using navigator websites. With online shopping, shoppers no longer have to suffer the costs and incomplete information of traditional hierarchical search, making product searches easier and more effective.

Business-based benefits

Like shoppers, corporations are burdened with the trade-off between richness and reach in conventional channels and markets. The wider the reach to customers that the corporation tries to obtain, the lower the information richness it is able to transmit, and vice-versa. As a result, corporations are forced to use intermediaries to enhance its customer reach and information richness.

According to Evans and Wurster (1999), with the Internet, corporations are able to practice disintermediation by obtaining both richness and reach without the limitations of the trade-off. Opportunities are created to rationalise the logistical value chain. This means that corporations can save different types of costs. Such costs savings would be transmitted to shoppers depending on the competitive pressures in the marketing channel and the relative bargaining powers between buyers and sellers. Corporations can eliminate supply intermediaries as they use the Internet to transmit information to a wide reach of consumers using online stores. This way, corporations save on the costs of supporting intermediaries such as agency fees and commissions. This could lower prices for shoppers, implying that a win-win situation is created between the corporation and customer as the savings on intermediary costs are divided between them, with the division of the gain depending on the competitive pressures in the marketplace. According to Evans and Wurster (1999):

When the underlying enabling technologies are moving an order of magnitude faster, the story is very different. The disintermediating business model can beat the old in both richness and reach. This can happen because technology permits more rich information to be delivered to consumers directly. It can also happen because technology permits such a thorough deconstruction of the old value chain that new combinations of free standing players can match the capabilities of the old vertically integrated business model (p. 93).

Another type of business cost saving is the reduced need for brick-and-mortar facilities. Traditional retailing is burdened with higher costs due to the capital cost of the physical premises and the attendant operational costs such as wages of sales staff. Sharma and Krishnan (2002) state that the Internet store has lower fixed costs, as it does not have to be physically located close to the customer. Also, since technology replaces most functions carried out by retail salespeople (such as check-out and verification), the costs are lower.

The high fixed capital costs associated with the physical facilities of conventional channels have in the past operated as formidable barriers to entry limiting competitive pressures for lower consumer prices. These physical facilities typically take years to build, and their presence automatically disadvantages potential new entrants. With the weakening or elimination of the trade-off between 'richness' and 'reach', competitive entry is made possible because the high fixed capital facilities no longer provide a protective barrier. In fact, they could provide a burden that disadvantages incumbent businesses, while advantaging new entrants. The upshot is the creation of competitive pressures for the passing on to consumers of the savings in capital and operational costs in the form of lower prices for online products.

Sharma and Krishnan (2002) state that in the last three years, the threat of the Internet has increased the competitive pressure that retailers face. According to Evans and Wurster (1999), online vendors are aware that due to the wider informational reach of consumers on the Internet, which leads to low levels of pricing secrecy, they have to focus on low prices to gain the competitive advantage. According to the Ernst and Young Survey ('Internet Shopping' 1998), prospective shoppers viewed price savings and selection as more important benefits than convenience, which was ranked third.

Conclusion

The Internet weakens or eliminates the trade-off between 'richness' and 'reach', creating benefits for both shoppers and corporations. With Internet shopping, shoppers are able to obtain a higher reach of alternative products and richer product information enabling an improved purchase decision. Shoppers no longer have to search in a hierarchical manner and be constrained by bounded rationality inherent in traditional shopping. Corporations are also able to reap similar benefits like the ability to obtain a wider reach of customers and provide greater information richness. This enables savings on intermediary costs and a reduced need for brick-and-mortar facilities, creating competitive pressures in the retail industry. This implies a competitive advantage for corporations (B2B and B2C) that use the Internet as a medium to reach its customers.

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