

LEVERAGING MULTICHANNEL RETAILING: THE EXPERIENCE OF TESCO.COM¹

Albrecht Enders
IMD—International
Institute for
Management
Development
(Switzerland)

Tawfik Jelassi
Ecole Nationale des
Ponts et Chaussées
(France)

Executive Summary

Online retailing has become a pervasive phenomenon that has profoundly affected the structure of many different industries. Yet the challenges for retailers in some industries have been more difficult due to the nature of the products sold and the existing fulfillment channels. We present an analysis of Tesco.com to show how the U.K.'s leading grocery supermarket chain successfully addressed its industry-specific challenges to become the biggest and most successful online grocery retailer in the world. Based on this analysis, we provide five lessons that we believe are useful for other multichannel retailing businesses:

- *Learn by doing and evolve your e-business operations strategy over time.*
- *Proactively address the inherent online/offline channel conflicts.*
- *Allocate the costs specific to each channel.*
- *Offer online shoppers a customized yet simple shopping experience.*
- *Leverage data from the online channel for both online and offline businesses.*

TESCO IS ONE OF THE FEW TO SUCCEED WITH ONLINE GROCERY RETAILING²

In little more than a decade, online retailing has become a pervasive phenomenon that has profoundly affected the structure of many different industries. Digital products, such as software, music, and other media content, which can be purchased and downloaded directly from an online retailer, are increasingly bought over the Internet. Likewise, many physical products, including books, clothes, and computers are also increasingly being sold through the Internet.

While Internet-based retailing has become an important channel for most product categories, it has so far made only relatively modest inroads into grocery retailing. There are numerous reasons for this lack of success.³ First, to many customers, shopping for groceries is an emotional activity where they want to sample products, particularly when choosing fresh vegetables, fruit, and meats.⁴ Thus even those customers who are used (or readily willing) to buy music or books online might shy away from buying their groceries through the Internet. Second, distribution costs are high because of bulky volumes and the perishable nature of many products. Thus delivery either needs to take place during tight predefined timeslots when customers can personally receive the delivery or they need to be placed in pre-installed cooling containers at the customer's home to avoid spoiling. Both options are complicated

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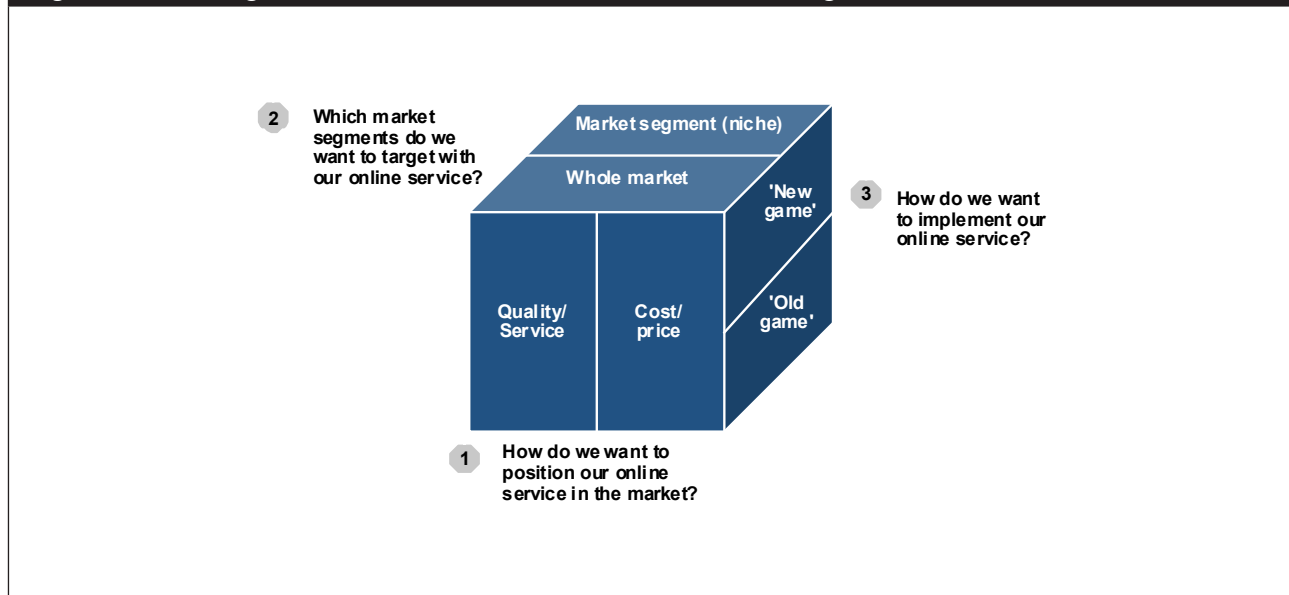
¹ Carol Brown is the accepting Senior Editor for this article.

² An earlier version of this article won the first-place award in the 2008 Best Paper Award competition of the Society for Information Management.

³ See (1) Müller-Lankenau, C., Wehmeyer, K., and Klein, S. "Multi-Channel Strategies: Capturing and Exploring Diversity in the European Retail Grocery Industry," *International Journal of Electronic Commerce* (10:2), Winter 2005-06, pp. 85-122; (2) Himelstein, L., and Khermouch, G. "Webvan left the basics on the shelf," *Business Week*, July 23, 2001, p. 43.

⁴ Palmer, J. et al. "Online Grocery Shopping Around the World: Examples of Key Business Models," *Communications of the AIS* (4:3), 2000, pp. 1-44.

Figure 1: Strategic Framework For Online Service Strategies



and costly to implement. Third, grocery retailing is a notorious low-margin business with intense cost pressure.

As a result, most early attempts to make online grocery retailing a profitable business failed. The most famous example is Webvan.com, a pure-play online grocery retailer that operated only out of dedicated warehouses. Webvan started operations during the peak of the dot.com boom in the late 1990s but quickly went bankrupt when demand did not scale up as it was expected, and the warehouses turned out to be over-sized. Similarly, Peapod.com (another pure-play online grocery retailer), which fulfilled its orders at partners' physical stores, also struggled until it was taken over by the Dutch grocery retail chain Ahold in 2001.

Bricks-and-mortar grocery retailers have also found it difficult to develop an integrated online retailing channel. Similar to other industries, the new business models called for different resources and competencies and were potentially in conflict with the existing way of doing business, including the risk of cannibalizing offline sales by the new online sales channel. Today, only a few grocery retailers worldwide have successfully integrated online grocery retailing into their channel mix and grown their multichannel business sustainably. These include, for instance, Auchan and Carrefour in France, as well as Sainsbury's and Tesco in the U.K.

In this article, we describe the strategic initiatives taken by Tesco PLC, which launched its online subsidiary—Tesco.com—in 1996. Tesco is now the

biggest and most successful online grocery retailer in the world.⁵ Our objective is to gain an in-depth understanding of specific decisions that influenced the overall strategy of Tesco.com and to share the lessons that are relevant for other multichannel retailing businesses.⁶

CONCEPTUAL FRAMEWORK

To provide a framework for discussing the Tesco.com case study, we use a conceptual strategic framework that outlines three main dimensions of strategic decision making⁷ (see Figure 1).

The first question in the framework refers to how a company aims to achieve a competitive advantage, similar to Porter's model of cost versus differentiation.⁸ As this case study illustrates, Tesco previously had changed from a low-cost to a differentiated positioning, and for its online business, it also chose to compete based on quality and service benefits to its customers.

The second question relates to which market segments the online service should target: the whole market or a market niche, similar to Porter's "focus" strategy? Here, Tesco.com initially addressed only

5 Hackney, R., Grant, K., and Birtwistle, G. "The UK grocery business: towards a sustainable business model for virtual markets," *International Journal of Retail & Distribution Management* (34:4/5), 2006, pp. 354-368.

6 Details of the research approach are in the Appendix.

7 Hungenberg, H. *Strategisches Management in Unternehmen*, Gabler, 2006, p. 251.

8 Porter, M. *Competitive Strategy*, Free Press, 1998.

a relatively small customer segment and then rolled out the business model to the broader market once the company had determined how best to manage its bricks-and-mortar operations.

The third question addresses the way the online service is implemented. That is, does it follow the established approach in the specific industry, or does it implement a discontinuous change that diverges strongly from the way business was done in the past? As we will see, Tesco's success is due to the ways in which it integrated its new way of doing business with its traditional offline business.

Below, we present a detailed account of the Tesco.com experience and the strategic decisions that the company made in relation to these three questions.

TESCO HISTORY

The first Tesco self-service supermarket was opened in 1956 in a converted cinema. During the 1950s and 1960s, Tesco grew primarily through acquisitions and, by the 1960s, had become a chain of 600 stores. The Tesco hypermarket store that opened in Leicester in 1961 with 16,500 square feet of selling space entered the Guinness Book of Records as the largest store at that time in Europe.

In the 1970s and 1980s, as customers began looking for quality and choice, Tesco's "pile it high and sell it cheap" strategy was less successful and results plummeted dramatically. The primary reason for the dismal performance was that customers had a negative image of Tesco and the products it sold. With its exclusive focus on low prices, stores were poorly maintained and the selection of items offered was perceived as inadequate and of mediocre quality.

Ian MacLaurin (Lord MacLaurin since 1996), started to turn the company around when he became CEO of Tesco in 1985. By the time he retired in early 1997, he had poured large amounts of money into the construction of new supermarket stores to attract upper market segments. Simultaneously, he introduced new systems and technology in sales and distribution to position Tesco across a range of store formats and market segments.

Terry Leahy, Tesco's current CEO, has worked for the company for more than 20 years. Much of Tesco's recent success is credited to his leadership. To respond to increased competition and declining prices in the food segment, Tesco significantly expanded its range of products. Its largest stores now devote 40%

to 50% of their shelf space to non-grocery items such as clothes and products for the home. In 2000, Tesco opened up a new front in retailing—selling televisions, DVD players, mobile phones, and other consumer electronics.

Another development that impacted the retailing industry was the advent of the Internet. Although Tesco had been trying to meet changing customer demands and develop new business models, it faced serious difficulties in doing that prior to the emergence of the Internet. Laura Wade-Gery, CEO of Tesco.com, recalled:

"We started out with the basic customer demands. Since the early 1990s, customers came up to us and said, 'It would be great if you could deliver my groceries to my home,' so we started experimenting with catalogue and phone ordering. It was an operational mess and very inefficient. So for us, the Internet came to the rescue in terms of providing the technology which enabled cost-efficient and operationally effective home delivery."

Tesco's online delivery service was launched in 1996. In doing so, Tesco became the first retailer in the U.K. to start this type of service, allowing customers to place orders by telephone, fax, and via the Internet. Tesco.com was formally established in 2000. That same year, Tesco.com started to open cyber-cafes in stores across the country to educate customers who were Internet illiterate and bring them online. By 2001, the Tesco.com Web site offered multiple product categories, including groceries, books, CDs and DVDs, home appliances (including refrigerators), and clothing.

Overall group sales increased from £36.9 billion (\$55.3 billion) in 2005 to £43.1 billion (\$64.6 billion) in 2006, and group profit before tax increased from £1.9 billion (\$2.8 billion) to £2.2 billion (\$3.3 billion). Today, Tesco employs more than 273,000 full-time equivalent employees across all of its businesses worldwide. It is now the leading player in the U.K. food retailing, with a market share of just over 30%, which is almost equivalent to the combined market share of its closest competitors Asda (owned by Wal-Mart) and Sainsbury's. Other leading players in the U.K.'s highly consolidated and competitive food retailing industry include Morrisons (which acquired Safeway in 2004) and Somerfield. Discount players, such as Lidl and Aldi, have entered the bottom segment of the market, adding to the existing price pressure.

SHOPPING FOR GROCERIES AT TESCO.COM

The shopping process at Tesco.com is influenced by how Tesco operates overall as an organization. Simplicity is important both to improve customer experience and to keep costs down. When discussing how the Web site was set up, Laura Wade-Gery pointed out:

“Actually, we weren’t particularly bothered about the Web site, as long as it enabled customers to do the basics of a shopping trip; that is, find the products they need, look at them, make their choice, and pay. So we decided to keep it as straightforward as possible.”

Instead of impressing with technological sophistication, Laura Wade-Gery wants Tesco.com customers to keep in mind four key facts:

- *‘I know Tesco will have it.’* “I want Tesco to be known to have pretty much anything a customer could want.”
- *‘I trust Tesco to offer me great value.’* “We have to make sure that we offer customers the best value.”
- *‘Tesco.com makes it easy for me to shop.’* “We want to be able to create a different shop window for different types of customers.”
- *‘I don’t have to think about it; it simply works.’* “All of our processes have to run absolutely smoothly and need to be optimized and redesigned continuously.”⁹

In spite of intense competition in the U.K. online grocery retailing market, Tesco.com has acquired the most online customers among all grocery retailers.¹⁰ The sections below describe how customers shop at Tesco.com, from registering on the Web site to taking delivery of the purchased products.

Registering on the Web Site

Users who want to order groceries online via Tesco.com need to register by providing their personal data, including delivery information. If customers own the company’s loyalty card, the Tesco Clubcard, they are

also encouraged to key in the card number, which enables the system to instantly show all their previous purchases in Tesco’s physical stores. The benefit of this close integration between the online and offline databases is that first-time online customers can use their store shopping list without having to search for each individual item they are used to buying at Tesco.

Laura Wade-Gery explained that the Clubcard idea was of great value during the first two years following the launch of Tesco.com:

“Especially in the first year of Tesco.com, we received numerous comments from new customers who couldn’t find a lot of the items they regularly bought offline; the choice was simply overwhelming. Now, if first-time online shoppers already have a Clubcard, our system will recognize that and automatically populate their shopping list with the items they usually buy in the supermarket, making it a lot easier for new customers to find the items they want. Besides, we can track how many online shoppers are also frequent Tesco store shoppers and how many we are drawing from other grocery retail chains.”

If a customer does not have a Clubcard or does not want to reveal the number, the system creates a new, virtual Clubcard number to track the online shopping history and award loyalty points.

Accessing the Web Site

Customers can access Tesco’s online services in several ways. Since 2001, shoppers at Tesco.com have been able to do their shopping through mobile e-commerce applications. In partnership with Microsoft, Tesco.com launched Tesco Access, which allows users of handheld computers and WAP-based wireless phones to shop online.¹¹ Tesco Access has since been included in the regular Web site of Tesco.com. Since July 2007, users have been able to adjust their Tesco.com account settings to specify how they want the site to be displayed.

Navigating The Web Site

The Web site offers several functions to facilitate online shopping. These include:

- *Express Shopper:* Customers can create their shopping lists on the Tesco.com Web site, just as they would do for a regular shopping trip.

9 For a more detailed discussion of service quality of online grocery retailers, see Xing, Y., and Grant, D. “Developing a framework for measuring physical distribution service quality of multi-channel and ‘pure player’ internet retailers,” *International Journal of Retail & Distribution Management* (34:4/5), 2006, pp. 278-289.

10 Hackney, R., Grant K., and Birtwistle, G., op. cit., 2006, pp. 354-368.

11 WAP stands for Wireless Access Protocol.

The Web site then searches for items from the product line that matches the customer's wishes. Customers simply choose the product they want and move on to the next item on the list.

- *Lunchbox Tool*: This tool, which is aimed at busy parents and customers wanting to order complete lunch meals, enables online shoppers to customize their sandwiches.
- *My Favourites*: This function displays a list of all the items that a customer has purchased recently. Customers click on any items that they want to buy again.
- *Online Recipe Book*: Customers can browse all the ingredients needed for a particular recipe and click on these ingredients to buy them. Products are split into those that the customer probably has at home and those that are special to a given recipe.
- *Organic Box*: Tesco offers preselected baskets of organic products in different sizes.
- *Season's Choices*: This displays items for special events, such as Christmas, a barbecue, or a party. Customers choose a specific list and then tick the products that they want to add to their shopping basket.

If customers have a preference regarding a product (e.g., they like their bananas ripe or green), they can mention this using a special note function that appears on the Web site next to each product (see Figure 2). If

an item is out-of-stock, they have the option of either choosing a suitable substitute or skipping that item. In case the customer does not like the substitute, he or she can return it to the Tesco.com delivery driver and its cost is then credited to the customer's account.

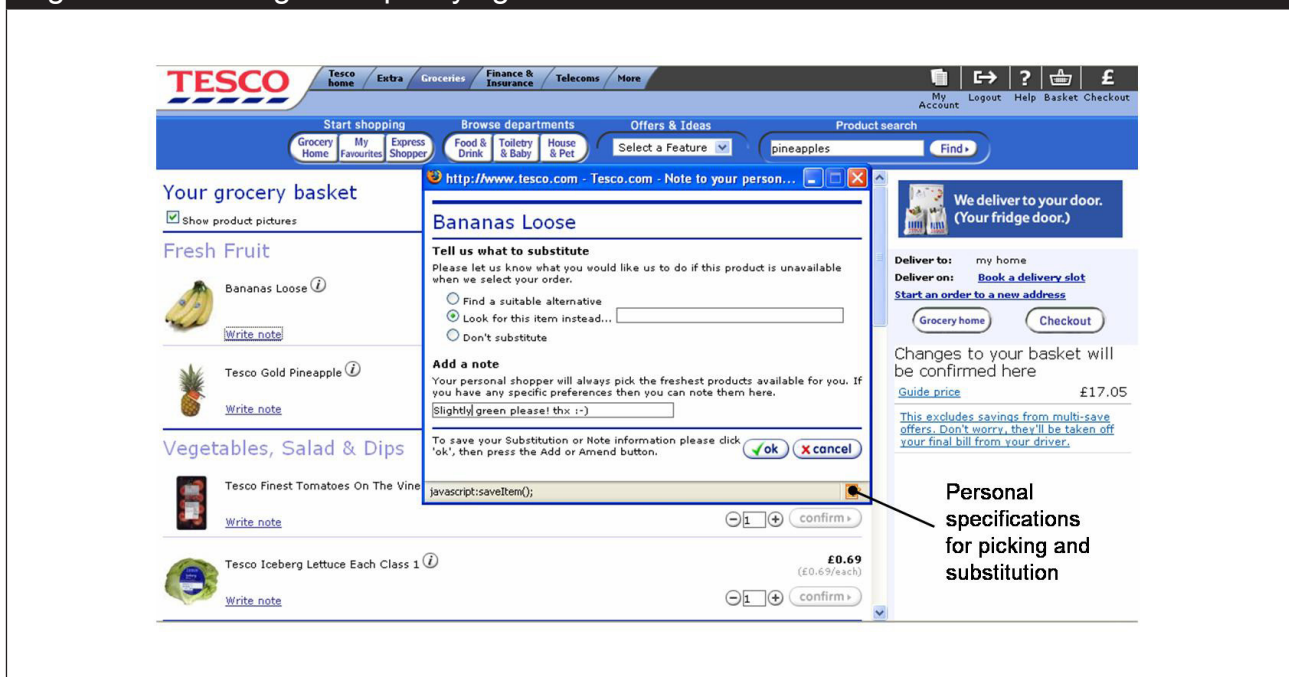
To ensure the best possible quality of the chosen products and to avoid picking the wrong products, Tesco.com pickers are specially trained prior to starting their job. When they pick items, they scan them and the system compares barcode details with the item ordered on the customer's shopping list, sounding an alert if the wrong item is picked. Additionally, for every item, the picker inspects the sell-by date and checks for any damage the product may have.

The Web site stores the contents of the virtual shopping cart each time the customer leaves the online store, thereby making it easy for different family members to retrieve the stored shopping list next time they connect to Tesco.com. Tesco is also continuing to integrate the online and offline shopping experiences so that Clubcard members can enter their card number through the Web site and view recent purchases made at Tesco's physical stores.

Scheduling Delivery and Paying for the Goods

The prices of goods sold on Tesco.com are the same as the in-store prices. In-store discounts, promotions,

Figure 2: Choosing and Specifying Products on Tesco.com



and special offers (e.g., “buy one, get one free”) are also made available to online customers. If the offer is already valid when the order is placed, it will also be displayed on the Web site. Payment can be made by credit or debit card, including Tesco’s own Clubcard Plus. The customer’s account is debited when the packing of the goods he or she ordered is completed.

For the first couple of years, Tesco charged a flat fee of £5 for home delivery, regardless of order volume and delivery time. Now, delivery fees differ according to the day of the week and the two-hour delivery slot (between 9.00 a.m. and 11.00 p.m.) that the customer chooses. Early weekday deliveries are cheapest while evening and weekend deliveries are more expensive.

Since the product delivery time is the only opportunity for a Tesco employee to interact with customers, Tesco.com tries to ensure that customers have a positive experience from their brief encounter with the delivery driver. In addition to talking about the groceries, Tesco delivery drivers also are confronted with unusual customer requests, such as “Can I borrow your van to help me move?,” “I need some help to change a tire,” “I need some marital advice,” or “Would you drop the kids off at school?” However, drivers are instructed to politely decline most of the requests.

Furthermore, to satisfy the wishes of up-market customers who disliked seeing Tesco’s white delivery vans parked in their driveways, Tesco.com even leased a small fleet of Range Rover cars for delivering goods to posh neighborhoods. Tesco.com used these cars for grocery delivery from early 2000, but due to environmental concerns, this practice has now been stopped, and the company’s fleet now consists only of electric-powered vans.

Items are delivered in plastic bags, with substitute items marked so that customers can inspect them on delivery and accept or reject them. In an attempt to reduce pollution and waste, Tesco is reducing its use of plastic bags for home deliveries. A recent study revealed that for an order of 32 items, Tesco.com used 11 bags, while other online retailers used even more.¹²

The company recently announced a “no-bag-option,” where groceries are delivered in stackable, reusable plastic trays that are taken away by the driver. Consumers who shun bags are rewarded with additional Clubcard loyalty points. Currently, around

40% of Tesco.com customers have opted for the no-bag delivery option.

Managing Customer Relationships

In 1995, Tesco introduced the U.K.’s first customer loyalty card, which offered benefits to regular shoppers while at the same time helping Tesco to analyze its customers’ needs. Today, Tesco has 13 million Clubcard members. Shoppers’ names and addresses, as well as the category of products purchased, are recorded and used for direct-mail campaigns and other promotions. For instance, when Tesco launched its pet insurance product, it was able to pitch to customers who had recently bought dog food and cat litter through Tesco.com.

Tesco.com regularly distributes printed flyers along with the shopping order, based on a customer’s food preferences. For example, customers ordering only vegetarian food will not receive a “barbecue season opening” flyer. Clubcard evenings (complimentary in-store gatherings for selected Clubcard holders) are held to promote products. Customers of the wine or cheese departments at Tesco might be invited to a wine-tasting evening; shoppers who have purchased shampoo or cosmetics might be invited to a hair-care event.

Soon after Tesco.com was launched, it realized that the vast majority of its customers shopped both online and offline, as Laura Wade-Gery explained:

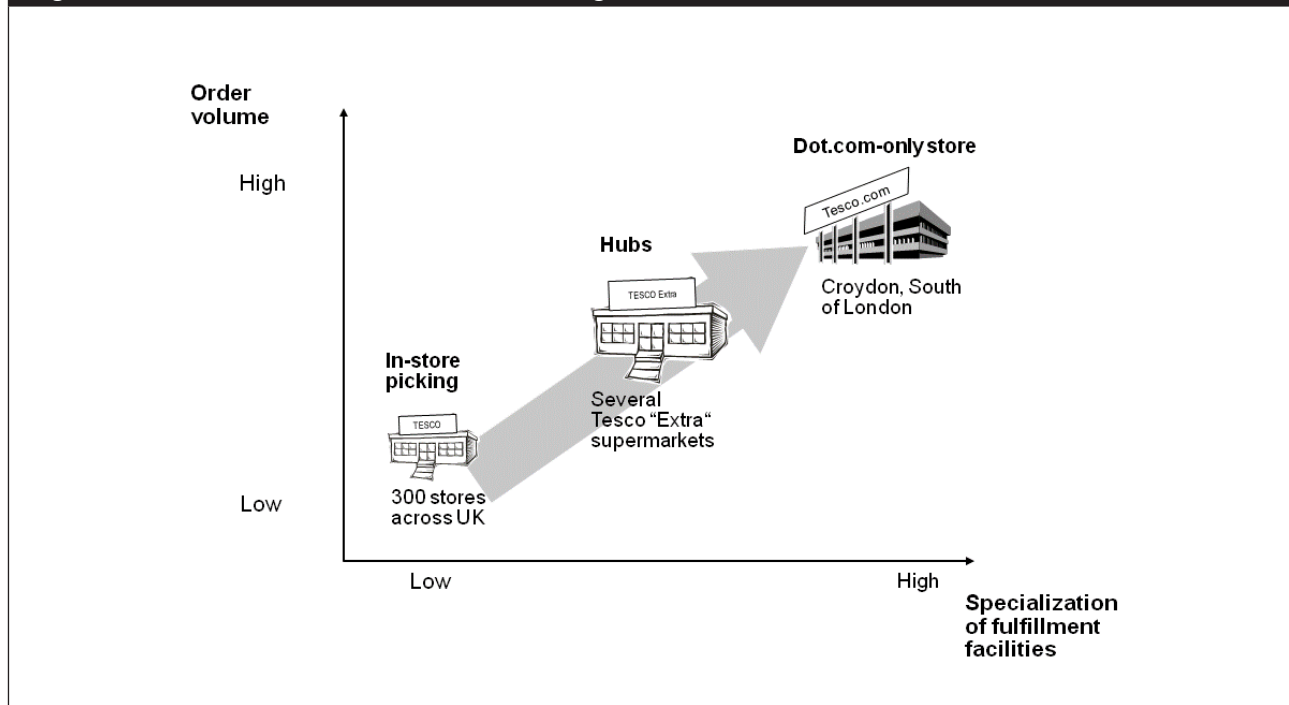
“Everybody who does grocery shopping for a household knows how difficult it is to buy fresh groceries for a whole week. So people buy stock items along with some fresh items and then return to a Tesco store once or twice a week to pick up fresh vegetables, fruit, or meat. And that is absolutely fine for two reasons: first, because it shows how compatible the offline and online shopping experience at Tesco has become. Second, because these customers are our most valuable ones in terms of overall order volume!”

EVOLVING THE TESCO.COM FULFILLMENT MODEL

When Tesco first started its delivery service in the mid-1990s, it was possible for customers to place orders through multiple devices: telephone, fax, and also via the Internet. However, the ordering system turned out to be too slow and inaccurate, as a lot of orders were captured manually, leading to frequent

12 “Shops fail to deliver on bags,” *Scottish Daily Record*, February 26, 2007.

Figure 3: Tesco.com Has Evolved Through Three Fulfillment Models



errors and frustration for customers. Delivery costs were too high since the picking system was manual and paper-based—pickers would walk around the store with order lists and take the requested items off the shelves. Laura Wade-Gery recounted the early days of grocery delivery:

"It was disastrous. You took the phone order; then typed it in manually, then sent it down to the store by fax, where it was then picked. We often had a kind of Chinese whisper effect, so when a person ordered a grapefruit, by the time he got the order, it might have become a cabbage."

To overcome these initial difficulties, Tesco decided to use the Internet as the sole ordering channel to streamline and improve the order processing.

When contemplating the fulfillment mode for online orders, Tesco.com first considered two different approaches: either to build huge warehouses or to use its physical stores as distribution centers. Both strategies carried risks: the new warehouses would have cost millions of pounds, which Tesco was hesitant to spend on an unproven business, while picking groceries from stores might clog the aisles, thereby frustrating in-store customers.

Hence, the business model evolved slowly over time: starting with the simplest fulfillment model of in-store picking, then progressing to a hub model that

leveraged existing large stores, and only recently building its first "dot.com-only" store when the volume of online orders exceeded what traditional facilities could absorb (see Figure 3).¹³

In-store Picking

Laura Wade-Gery explained the rationale behind choosing the in-store picking model:

*"In the beginning, a lot of people looked at our idea of in-store picking and said, 'You are mad; this can't possibly be right.' They automatically assumed that the warehouse model was the answer. But think about the costs of fulfillment: the costs are actually in delivery. That made it necessary to start near the customer—our dense network of supermarkets all over the country that were there anyway. So actually it was much less of a strategic debate than I guess it has been made to appear on the outside. It was just the obvious thing to do."*¹⁴

Giving customers a natural extension of the bricks-and-mortar experience also yielded advantages for the company, as Daniel Roberts, operations development director at Tesco Direct, added:

¹³ See also Jelassi, T., and Enders, A. *Strategies for e-business: Creating Value Through Electronic and Mobile Commerce*, Second Edition, 2008, Financial Times/Prentice Hall.

¹⁴ For more information on the comparison between warehouse-based vs. store-picking business models, see Davis, G. "Tesco refuses to be overtaken," *Retail Week*, March 8, 2002, p. 14.

“If you place an order on Tesco.com, we will go and pick that order in a Tesco store. So our experience of availability, product quality, and other aspects of shopping at the store is the same as that for somebody walking in from the street. In essence, Tesco.com pickers are our eyes of the regular customer on the shop floor, to the extent that the Tesco.com metric for availability has become the overall Tesco metric for availability.”

Tesco.com now picks around 250,000 orders per week from 300 stores in the U.K. By delivering from local stores, no delivery journey is more than 25 minutes since 94% of the English population lives within a 25-minute radius of a Tesco store.

However, to ensure an undisturbed shopping experience for its customers, Tesco.com has refined its picking approach over the years. Picking starts at 6:00 a.m. and continues until 2:00 p.m. During this period, the number of picking staff at a given store is gradually reduced as more customers come in to do their shopping. In this way, the daily peaks of in-store picking and regular shopping are desynchronized to avoid clogging the aisles. Using smarter algorithms to determine the sequence in which goods are picked also helps to reduce the disturbance by spreading the picking trolleys more evenly across the store.

Leveraging Large Supermarkets as “Hubs”

As stated above, Tesco’s fulfillment activities are run from about 300 stores in the U.K.; these stores vary in size from a 30,000-square-foot store to a 125,000-square-foot hypermarket. Despite all attempts at optimizing in-store picking, these stores have a limit of online orders they can fulfill without disrupting physical shoppers. Daniel Roberts explained:

“One problem we do have is congestion, especially during the Christmas period. In some stores, we have literally dozens of trolleys on the shop floor, and they start to cause distractions with customers and other pickers, so we can see some bottlenecks in that area. And although you might be able to work around that, you will then hit the next bottleneck—maybe because replenishment can’t keep up with the rapid picking speed, causing too many items to be out-of-stock.”

Other bottlenecks include the size of the backroom where orders are stored and loaded onto the delivery

vans, and the parking space available for the delivery fleet. Some stores operate only two or three delivery vans, while large stores with more floor space can have a fleet of up to 20 vans. In total, Tesco.com has 1,800 vans.

Occasionally, Tesco had built a supermarket larger than actually needed. A couple of these Tesco “Extra” stores have been expanded into “hubs” by increasing picking staff and delivery fleet, and building a customized order handling area in the back of the stores. These stores now serve a larger area for Tesco.com, thus taking away some of the pressure from congested supermarkets in neighboring areas.

Building the Dot.com-only Store

Tesco’s first dot.com-only store, located in Croydon (in south London), opened in February 2006. Its size is comparable to that of typical Tesco superstores, which range from 20,000 to 50,000 square feet. However, this store was also designed to enable Tesco.com to use:

- The logistics know-how it had refined over time in the stores .
- The experience of the in-store picking model, including special picking trolleys equipped with wireless computers that guide the picker to the right aisle and shelves to pick the next product (see Figure 4).

Adding the dot.com-only store also removed the time and space constraints that some of the crowded Tesco stores around London were facing.

As Laura Wade-Gery explained, the dot.com-only store is a hybrid approach that combines the benefits of in-store picking with the spaciousness of a large warehouse:

“In some parts of the U.K., we have pushed the limit of the store-based model probably as far as we can. But given customer demand for the service, we tried to find a way to further our online business. So this is why ... we built what we call our “dot.com-only store.” From the outside, it looks just like a warehouse. From the inside, it looks just like a Tesco store. And essentially, that’s what it is: a large Tesco supermarket—except without customers, cash registers, and checkout staff.”

Figure 4: Tesco.com's Picking Trolley Interface



MANAGING THE CONFLICT BETWEEN ONLINE AND OFFLINE CHANNELS

Like any other bricks-and-mortar retailer that moves into online retailing, Tesco also had to address the issue of possible channel conflicts when it set up its Internet operations.¹⁵ The channel conflict matrix in Figure 5 shows two main dimensions that can be used to determine how to deal with possible conflicts between offline and online channels:

- The level of risk of destructive conflict occurring between the different channels.
- The importance (in terms of current or potential volume or profitability) of the existing physical channel that is threatened by the new online channel.

As long as Tesco.com still relies primarily on in-store fulfillment, the best approach to channel conflict is

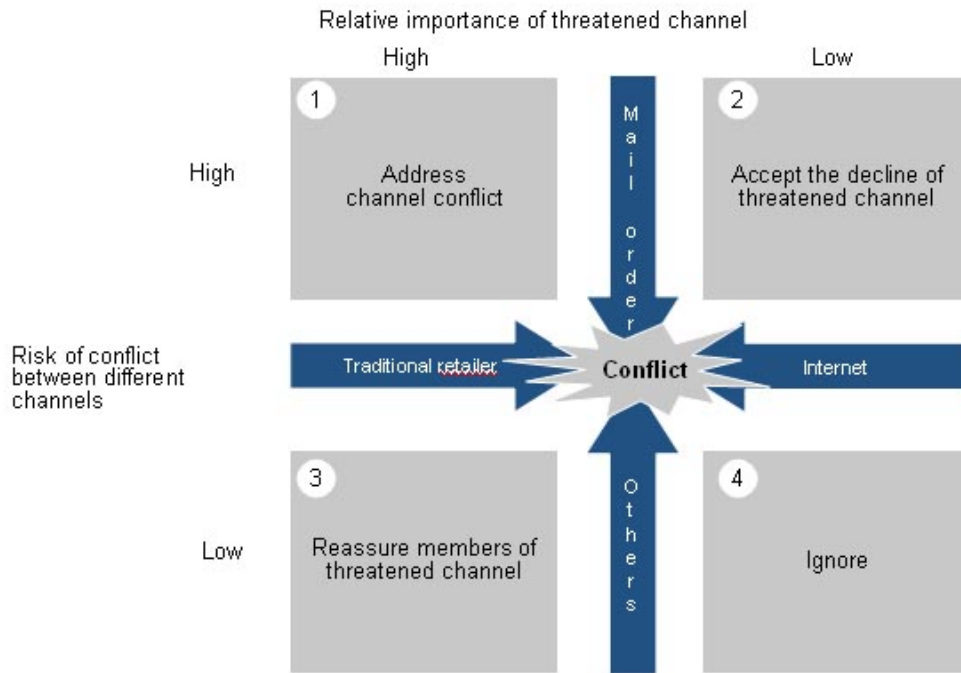
¹⁵ See Bucklin, C., Thomas-Graham, P., and Webster, E. "Channel conflict: When is it dangerous?," *McKinsey Quarterly*, No. 3, 1997, pp. 36-43. See also Enders, A., Jelassi, T., and Harald, B. "From e-banking to e-Business at Nordea Bank," *Management Information Systems Quarterly Executive* (5:1), 2006, pp. 31-42.

shown in the bottom left Quadrant 3. This approach is characterized by a low prospect of destructive conflict but a high importance of the potentially threatened physical channel. From the store manager's perspective, integrating the Tesco.com operation into their daily business could be seen like a drastic intrusion and an extra challenge. However, online orders have a significant impact on the potential for increased sales turnover per square foot. Since this is one of the key metrics for determining a store's success, store managers are keen to integrate the online service into their physical operations. The online business has a similar operating margin to Tesco's in-store business of approximately 5.7%, but it has had a much higher annual sales growth rate of up to 30%, compared to 9% growth at U.K. stores.

Laura Wade-Gery says that store managers therefore see fulfilling online orders as an opportunity rather than a threat, despite the additional burdens:

"The online business is quite a lot of extra work for the store manager, so why would he want this rather complicated time-critical operation in his store's back area? Well, the answer is, he wants it because it is providing significant sales growth. And as a retailer, the

Figure 5: Addressing Multichannel Conflicts



Source: Adapted from Bucklin, Thomas-Graham, and Webster, 1997

first thing that counts for him is sales—no matter where they come from. So even if the dot.com operation may only account for 4% of a store's total sales, it is a portion that is growing constantly at 25% to 30% per year."

Tesco.com managed to avoid channel conflict under the initial store-picking model by aligning the incentives between the offline and online channels. Store managers benefit from the online sales just the way they would benefit from increased sales in their physical stores. This is especially important, since the average online basket value is up to four times higher than the average store-based basket value.¹⁶

In addition to the sales dimension, Tesco.com also pays careful attention when allocating costs between the two channels. The integration and operation of online activities incurs additional costs that must be split between the main business and Tesco.com in a way that fairly reflects the costs of each side. Tesco.com differentiates between three different types of cost that it incurs:

- *Direct costs:* These include the direct costs involved in fulfilling the online orders, such as the costs of picking personnel, delivery fleet, drivers, equipment, IT system, etc.
- *Indirect costs:* These are incremental costs incurred by the online operation, e.g., additional replenishments during picking hours, additional cleaning costs on the store floor, etc.
- *Pure bricks-and-mortar costs:* For instance, the operating costs of a store's restaurant will not be shared in any way with Tesco.com.

In the past, Tesco.com had been criticized as merely "piggybacking" on the success of the physical business. According to Laura Wade-Gery, Tesco.com follows a pragmatic approach when it comes to splitting costs between the online activity and the bricks-and-mortar business:

"We clearly separate between genuine and incremental costs that are caused by us [Tesco.com] and costs that would be there anyway. A good example is when we started, we were operating in a narrow corridor in the store's storage area, closed off by a metal bar that we put in for maybe £600 (\$900). So did we charge

¹⁶ Jelassi, T., and Enders, A. *Strategies for e-business: Creating Value Through Electronic and Mobile Commerce*, Financial Times/Prentice Hall, 2004, p. 306.

ourselves huge amounts of the store's lighting, heating, and capital development costs? No, we didn't! But now, we have our own design standard for what we need a dot.com area to look like, which has its own freezer, its own chiller, and decent amounts of space. That can cost up to £250,000 (\$375,000), so we pay for that because that was genuinely caused by us, as well as for the additional heating, electricity, replenishment, and cleaning."

As online operations continue to expand, however, the number of dot.com-only stores will also increase. These purely online distribution centers have higher sales turnover because they are designed to serve only online customers. As a result, they could cannibalize the online sales of neighboring Tesco stores. Such a situation would put Tesco into the upper-left quadrant of Figure 5. The company would then need to institute other incentive mechanisms to ensure that individual store managers will not feel threatened by Tesco.com and thus continue to support it.

LESSONS LEARNED

In this article, we have provided an overview of how Tesco.com evolved over time from a pure in-store fulfillment approach to a dedicated warehouse-based system. Based on the experiences of Tesco.com, we now provide several lessons for other retailing organizations in general, not just those in the grocery industry.

1. Learn by Doing and Evolve Your E-business Operations Strategy Over Time

Through its in-store fulfillment of online orders, Tesco kept its initial investments to a minimum. It then slowly scaled up its facilities as demand evolved and as the company learned more about how to effectively manage its back-end operations. These insights, such as the optimal design of the picking-trolley interface and the lay-out of the picking routes, were then leveraged for subsequent fulfillment strategies.

In contrast, other online grocery retailers, such as Webvan and Peadod, which started their operations without having an extensive store network, had to rely from the outset on investment-intensive warehouses. When demand did not scale up as expected, the facilities quickly turned out to be over-sized, which made the whole business model not viable.

2. Proactively Address the Inherent Online/Offline Channel Conflicts

When retailers add an online channel to their physical operations, the new channel may cannibalize the traditional bricks-and-mortar business. This is the case when distribution takes place out of dedicated fulfillment centers that take business away from the physical stores. This conflict will likely be lessened when managers of physical stores participate in the revenues generated by the online channel. In-store picking at Tesco means the online channel contributes to the success of the physical channel, since all online sales that are picked in a particular store are credited to that store.

3. Allocate the Costs Specific to Each Channel

The launch of Tesco's online operations led to only incremental costs for the physical stores involved in fulfilling the Internet orders. To track the success of the online business, it was important to allocate only those costs that were actually caused by the addition of the online fulfillment service to the offline channels.

4. Offer Online Shoppers a Customized Yet Simple Shopping Experience

Throughout the shopping process, Tesco.com aims to make it as easy as possible for customers to navigate the Web site. Most importantly, Tesco manages to closely integrate the information systems of its online operations and bricks-and-mortar stores. For instance, data from previous in-store purchases is automatically included in the online shopping list. Furthermore, Tesco assists customers by providing shopping options with clear customer profiles in mind (e.g., lunchbox tool or express shopper). It also uses a simple pricing scheme: identical product prices for online and offline purchases and flat delivery fees that vary only depending on delivery day and time.

5. Leverage Data From the Online Channel for Both Online and Offline Businesses

Tesco.com is able to collect detailed customer data related to the complete online shopping experience. It collects data not just about products that customers actually purchase but also information about items that they just look at. Tesco is also able to generate new detailed data about the availability of products in the stores. As Tesco.com pickers move through the aisles, they quickly notice when products are out-of-

stock, and this information is passed on to the central warehousing operations of the Tesco store. Stores are thus able to recognize out-of-stock situations more quickly and can address them faster.

We believe these five lessons are useful for other retailing organizations in general, not just for grocery retailers. Laura Wade-Gery summarized the transferability of Tesco.com's learnings this way:

"Having an extremely strong existing brand, the power of the Internet, and our ability to use it—these are the key factors to our success. There is virtually no limit to what we can sell, be it physical goods or services, and where we can sell it."

APPENDIX: THE RESEARCH APPROACH

Our goal with this research project was to gain an in-depth understanding of how Tesco.com evolved in recent years. Due to the exploratory nature of this study, a qualitative approach was adopted, and we relied on different sources to gather insights and distill our findings.

Most importantly, we had the opportunity to conduct interviews with members of the top management team of Tesco.com.¹⁷ We complemented the insights gained through the interviews with an extensive analysis of the Tesco.com Web site and public relations material.

To gain a well-informed understanding of the back-end logistics, we visited Tesco stores, where we participated in picking goods for online orders and in packaging the groceries and loading them up onto the delivery vans.

Finally, we also interviewed Tesco.com customers to learn more about the reasons why they shopped at Tesco.com.

ABOUT THE AUTHORS

Albrecht Enders

Albrecht Enders (albrecht.enders@imd.ch) is Professor of Strategy and Innovation at the International Institute for Management Development (IMD) in Lausanne, Switzerland. Previously, he

worked as a consultant with the Boston Consulting Group in Cologne, Germany. Together with Tawfik Jelassi, he co-authored the textbook *Strategies for e-business: Creating Value through Electronic and Mobile Commerce* (Second Edition, Financial Times/Prentice Hall, 2008). He holds a Ph.D. in strategic management from the Leipzig Graduate School of Management and a B.A. in Economics from Dartmouth College in the United States.

Tawfik Jelassi

Tawfik Jelassi (jelassi@enpcmbaparis.com) is Dean and Professor, e-Business and IT at Ecole Nationale des Ponts et Chaussées (School of International Management) in Paris, France. Previously, he was an associate professor and coordinator of the technology management area at INSEAD (Fontainebleau). He has written (or co-written) five books and over 80 research articles published in leading journals and conference proceedings. Jelassi holds a Ph.D. from the Stern School of Business at New York University and graduate degrees from the Université de Paris-Dauphine. He has taught on MBA and executive education programs in over a dozen countries and has advised several international corporations and government organizations.

¹⁷ In particular, the quotations from Laura Wade-Gery and Daniel Roberts in this article were recorded during on-site interviews that the authors conducted at Tesco.com in May 2007 at Tesco's headquarters in Welwyn Garden City, U.K.