Case study: Zara, Fast Fashion from Savvy Systems

Introduction

The poor, ship-building town of La Coruña in northern Spain seems an unlikely home to a tech-charged innovator in the decidedly ungeeky fashion industry, but that’s where you’ll find “The Cube,” the gleaming, futuristic central command of the Inditex Corporation (Industrias de Diseño Textil), parent of game-changing clothes giant, Zara. The blend of technology-enabled strategy that Zara has unleashed seems to break all of the rules in the fashion industry. The firm shuns advertising and rarely runs sales. Also, in an industry where nearly every major player outsources manufacturing to low-cost countries, Zara is highly vertically integrated, keeping huge swaths of its production process in-house. These counterintuitive moves are part of a recipe for success that’s beating the pants off the competition, and it has turned the founder of Inditex, Amancio Ortega, into Spain’s wealthiest man and the world’s richest fashion executive.

Figure 3.1. Zara’s operations are concentrated in Spain, but they have stores around the world like these in Manhattan and Shanghai.

The firm tripled in size between 1996 and 2000, then its earnings skyrocketed from $2.43 billion in 2001 to $13.6 billion in 2007. By August 2008, sales edged ahead of Gap, making Inditex the world’s largest fashion retailer.\[^{1}\] Table 3.1 compares the two fashion retailers. While Inditex supports eight brands, Zara is unquestionably the firm’s crown jewel and growth engine, accounting for roughly two-thirds of sales.\[^{2}\]
### Table 3.1. Gap versus Inditex at a Glance

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<thead>
<tr>
<th></th>
<th>Gap</th>
<th>Inditex</th>
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</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td>$14.5 billion</td>
<td>$14.7 billion</td>
</tr>
<tr>
<td><strong>Net Income</strong></td>
<td>$967 million</td>
<td>$1.68 billion</td>
</tr>
<tr>
<td><strong>Number of Stores</strong></td>
<td>3,149</td>
<td>4,359</td>
</tr>
<tr>
<td><strong>Number of Countries</strong></td>
<td>6</td>
<td>73</td>
</tr>
<tr>
<td><strong>Biggest Brand</strong></td>
<td>Gap</td>
<td>Zara</td>
</tr>
<tr>
<td><strong>Number of Other Brads</strong></td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td><strong>Based in</strong></td>
<td>San Francisco, USA</td>
<td>Arteixo (near La Coruña), Spain</td>
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<td><strong>First Store Opened</strong></td>
<td>1969</td>
<td>1975</td>
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### Why Study Zara?

While competitors falter, Zara is undergoing one of the fastest global expansions the fashion world has ever seen, opening one store per day and entering new markets worldwide—seventy-three countries so far. The chain’s profitability is among the highest in the industry.\(^3\) The fashion director for luxury goods maker LVMH calls Zara “the most innovative and devastating retailer in the world.”\(^4\)

Zara’s duds look like high fashion but are comparatively inexpensive (average item price is $27, although prices vary by country).\(^5\) A Goldman analyst has described the chain as “Armani at moderate prices,” while another industry observer suggests that while fashions are more “Banana Republic,” prices are more “Old Navy.”\(^6\) Legions of fans eagerly await “Z-day,” the twice-weekly inventory delivery to each Zara location that brings in the latest clothing lines for women, men, and children.

In order to understand and appreciate just how counterintuitive and successful Zara’s strategy is, and how technology makes all of this possible, it’s important to first examine the conventional wisdom in apparel retail. To do that we’ll look at former industry leader—Gap.
Gap: An Icon in Crisis

Most fashion retailers place orders for a seasonal collection months before these lines make an appearance in stores. While overseas contract manufacturers may require hefty lead times, trying to guess what customers want months in advance is a tricky business. In retail in general and fashion in particular, there’s a saying: inventory equals death. Have too much unwanted product on hand and you’ll be forced to mark down or write off items, killing profits. For years, Gap sold most of what it carried in stores. Micky Drexler, a man with a radar-accurate sense of style and the iconic CEO who helped turn Gap’s button-down shirts and khakis into America’s business casual uniform, led the way. Drexler’s team had spot-on tastes throughout the 1990s, but when sales declined in the early part of the following decade, Drexler was left guessing on ways to revitalize the brand, and he guessed wrong—disastrously wrong. Chasing the youth market, Drexler filled Gap stores with miniskirts, low-rise jeans, and even a much-ridiculed line of purple leather pants. The throngs of teenagers he sought to attract never showed up, and the shift in offerings sent Gap’s mainstay customers to retailers that easily copied the styles that Gap had made classic.

The inventory hot potato Drexler was left with crushed the firm. Gap’s same-store sales declined for twenty-nine months straight. Profits vanished. Gap founder and chairman Dan Fisher lamented, “It took us thirty years to get to $1 billion in profits and two years to get to nothing.” The firm’s debt was downgraded to junk status. Drexler was out and for its new head the board chose Paul Pressler, a Disney executive who ran theme parks and helped rescue the firm’s once ailing retail effort.

Pressler shut down hundreds of stores, but the hemorrhaging continued largely due to bad bets on colors and styles. During one holiday season, Gap’s clothes were deemed so off target that the firm scrapped its advertising campaign and wrote off much of the inventory. The marketing model used by Gap to draw customers in via big-budget television promotion had collapsed. Pressler’s tenure saw same-store sales decline in eighteen of twenty-four months. A Fortune article on Pressler’s leadership was titled “Fashion Victim.” BusinessWeek described his time as CEO as a “Total System Failure,” and Wall Street began referring to him as DMW for Dead Man Walking. In January 2007, Pressler resigned, with Gap hoping its third chief executive of the decade could right the ailing giant.

Key Takeaways

- Zara has used technology to dominate the retail fashion industry as measured by sales, profitability, and growth.
- Excess inventory in the retail apparel industry is the kiss of death. Long manufacturing lead times require executives to guess far in advance what customers will want. Guessing wrong can be disastrous, lowering margins through markdowns and write-offs.
- Contract manufacturing can offer firms several advantages, including lower costs and increased profits. But firms have also struggled with the downside of cost-centric contract manufacturing when partners have engaged in sweatshop labor and environmental abuse.
Don’t Guess, Gather Data

Having the wrong items in its stores hobbled Gap for nearly a decade. But how do you make sure stores carry the kinds of things customers want to buy? Try asking them. Zara’s store managers lead the intelligence-gathering effort that ultimately determines what ends up on each store’s racks. Armed with personal digital assistants (PDAs)—handheld computing devices meant largely for mobile use outside an office setting—to gather customer input, staff regularly chat up customers to gain feedback on what they’d like to see more of. A Zara manager might casually ask, “What if this skirt were in a longer length?” “Would you like it in a different color?” “What if this V-neck blouse were available in a round neck?” Managers are motivated because they have skin in the game. The firm is keen to reward success—as much as 70 percent of salaries can come from commissions.¹³

Another level of data gathering starts as soon as the doors close. Then the staff turns into a sort of investigation unit in the forensics of trendspotting, looking for evidence in the piles of unsold items that customers tried on but didn’t buy. Are there any preferences in cloth, color, or styles offered among the products in stock?¹⁴

PDAs are also linked to the store’s point-of-sale (POS) system—a transaction process that captures customer purchase information—showing how garments rank by sales. In less than an hour, managers can send updates that combine the hard data captured at the cash register with insights on what customers would like to see.¹⁵ All this valuable data allows the firm to plan styles and issue rebuy orders based on feedback rather than hunches and guesswork. The goal is to improve the frequency and quality of decisions made by the design and planning teams.

Design

Rather than create trends by pushing new lines via catwalk fashion shows, Zara designs follow evidence of customer demand. Data on what sells and what customers want to see goes directly to “The Cube” outside La Coruña, where teams of some three hundred designers crank out an astonishing thirty thousand items a year versus two to four thousand items offered up at big chains like H&M (the world’s third largest fashion retailer) and Gap.¹⁶ While H&M has offered lines by star designers like Stella McCartney and Karl Lagerfeld, as well as celebrity collaborations with Madonna and Kylie Minogue, the Zara design staff consists mostly of young, hungry Project Runway types fresh from design school. There are no prima donnas in “The Cube.” Team members must be humble enough to accept feedback from colleagues and share credit for winning ideas. Individual bonuses are tied to the success of the team, and teams are regularly rotated to cross-pollinate experience and encourage innovation.

Manufacturing and Logistics

In the fickle world of fashion, even seemingly well-targeted designs could go out of favor in the months it takes to get plans to contract manufacturers, tool up production, then ship items to warehouses and eventually to retail locations. But getting locally targeted designs quickly onto store shelves is where Zara really excels. In one telling example, when Madonna played a set of concerts in Spain, teenage girls arrived to the final show sporting a Zara knockoff of the outfit she wore during her first performance.¹⁷ The average time for a Zara concept to go from idea to appearance in store is fifteen days versus their rivals who receive new styles once
or twice a season. Smaller tweaks arrive even faster. If enough customers come in and ask for a round neck instead of a V neck, a new version can be in stores with in just ten days. To put that in perspective, Zara is twelve times faster than Gap despite offering roughly ten times more unique products! At H&M, it takes three to five months to go from creation to delivery—and they’re considered one of the best. Other retailers need an average of six months to design a new collection and then another three months to manufacture it. VF Corp (Lee, Wrangler) can take nine months just to design a pair of jeans, while J. Jill needs a year to go from concept to store shelves. At Zara, most of the products you see in stores didn’t exist three weeks earlier, not even as sketches.

The firm is able to be so responsive through a competitor-crushing combination of vertical integration and technology-orchestrated coordination of suppliers, just-in-time manufacturing, and finely tuned logistics. Vertical integration is when a single firm owns several layers in its value chain. While H&M has nine hundred suppliers and no factories, nearly 60 percent of Zara’s merchandise is produced in-house, with an eye on leveraging technology in those areas that speed up complex tasks, lower cycle time, and reduce error. Profits from this clothing retailer come from blending math with a data-driven fashion sense. Inventory optimization models help the firm determine how many of which items in which sizes should be delivered to each specific store during twice-weekly shipments, ensuring that each store is stocked with just what it needs.

Outside the distribution center in La Coruña, fabric is cut and dyed by robots in twenty-three highly automated factories. Zara is so vertically integrated, the firm makes 40 percent of its own fabric and purchases most of its dyes from its own subsidiary. Roughly half of the cloth arrives undyed so the firm can respond as any midseason fashion shifts occur. After cutting and dying, many items are stitched together through a network of local cooperatives that have worked with Inditex so long they don’t even operate with written contracts. The firm does leverage contract manufacturers (mostly in Turkey and Asia) to produce staple items with longer shelf lives, such as t-shirts and jeans, but such goods account for only about one-eighth of dollar volume.

All of the items the firm sells end up in a five-million-square-foot distribution center in La Coruña, or a similar facility in Zaragoza in the northeast of Spain. The La Coruña facility is some nine times the size of Amazon’s warehouse in Fernley, Nevada, or about the size of ninety football fields. The facilities move about two and a half million items every week, with no item staying in-house for more than seventy-two hours. Ceiling-mounted racks and customized sorting machines patterned on equipment used by overnight parcel services, and leveraging Toyota-designed logistics, whisk items from factories to staging areas for each store. Clothes are ironed in advance and packed on hangers, with security and price tags affixed. This system means that instead of wrestling with inventory during busy periods, employees in Zara stores simply move items from shipping box to store racks, spending most of their time on value-added functions like helping customers find what they want. Efforts like this help store staff regain as much as three hours in prime selling time.

Trucks serve destinations that can be reached overnight, while chartered cargo flights serve farther destinations within forty-eight hours. The firm recently tweaked its shipping models through Air France–KLM Cargo and Emirates Air so flights can coordinate outbound shipment of all Inditex brands with return legs loaded with raw materials and half-finished clothes items from locations outside of Spain. Zara is also a pioneer in going green. In fall 2007, the firm’s CEO unveiled an environmental strategy that includes the use of renewable energy systems at logistics centers including the introduction of biodiesel for the firm’s trucking fleet.
Stores

Most products are manufactured for a limited production run. While running out of bestsellers might be seen as a disaster at most retailers, at Zara the practice delivers several benefits.

First, limited runs allow the firm to cultivate the exclusivity of its offerings. While a Gap in Los Angeles carries nearly the same product line as one in Milwaukee, each Zara store is stocked with items tailored to the tastes of its local clientele. A Fifth Avenue shopper quips, “At Gap, everything is the same,” while a Zara shopper in Madrid says, “You’ll never end up looking like someone else.” Upon visiting a Zara, the CEO of the National Retail Federation marveled, “It’s like you walk into a new store every two weeks.”

Second, limited runs encourage customers to buy right away and at full price. Savvy Zara shoppers know the newest items arrive on black plastic hangers, with store staff transferring items to wooden ones later on. Don’t bother asking when something will go on sale; if you wait three weeks the item you wanted has almost certainly been sold or moved out to make room for something new. Says one twenty-three year-old Barcelona shopper, “If you see something and don’t buy it, you can forget about coming back for it because it will be gone.”

A study by consulting firm Bain & Company estimated that the industry average markdown ratio is approximately 50 percent, while Zara books some 85 percent of its products at full price.

The constant parade of new, limited-run items also encourages customers to visit often. The average Zara customer visits the store seventeen times per year, compared with only three annual visits made to competitors. Even more impressive—Zara puts up these numbers with almost no advertising. The firm’s founder has referred to advertising as a “pointless distraction.” The assertion carries particular weight when you consider that during Gap’s collapse, the firm increased advertising spending but sales dropped. Fashion retailers spend an average of 3.5 percent of revenue promoting their products, while ad spending at Inditex is just 0.3 percent.

Finally, limited production runs allow the firm to, as Zara’s CEO once put it, “reduce to a minimum the risk of making a mistake, and we do make mistakes with our collections.” Failed product introductions are reported to be just 1 percent, compared with the industry average of 10 percent. So even though Zara has higher manufacturing costs than rivals, Inditex gross margins are 56.8 percent compared to 37.5 percent at Gap.

While stores provide valuable front-line data, headquarters plays a major role in directing in-store operations. Software is used to schedule staff based on each store’s forecasted sales volume, with locations staffing up at peak times such as lunch or early evening. The firm claims these more flexible schedules have shaved staff work hours by 2 percent. This constant refinement of operations throughout the firm’s value chain has helped reverse a prior trend of costs rising faster than sales.

Even the store displays are directed from “The Cube,” where a basement staging area known as “Fashion Street” houses a Potemkin village of bogus storefronts meant to mimic some of the chain’s most exclusive locations throughout the world. It’s here that workers test and fine-tune the chain’s award-winning window displays, merchandise layout, and even determine the in-store soundtrack. Every two weeks, new store layout marching orders are forwarded to managers at each location.
Technology ≠ Systems. Just Ask Prada

Here’s another interesting thing about Zara. Given the sophistication and level of technology integration within the firm’s business processes, you’d think that Inditex would far outspend rivals on tech. But as researchers Donald Sull and Stefano Turconi discovered, “Whether measured by IT workers as a percentage of total employees or total spending as a percentage of sales, Zara’s IT expenditure is less than one-fourth the fashion industry average.”

Zara excels by targeting technology investment at the points in its value chain where it will have the most significant impact, making sure that every dollar spent on tech has a payoff.

Contrast this with high-end fashion house Prada’s efforts at its flagship Manhattan location. The firm hired the Pritzker Prize–winning hipster architect Rem Koolhaas to design a location Prada would fill with jaw-dropping technology. All items for sale in the store would sport with radio frequency identification (RFID) tags (small chip-based tags that wirelessly emit a unique identifying code for the item that they are attached to). Walk into a glass dressing room and customers could turn the walls opaque, then into a kind of combination mirror and heads-up display. By wirelessly reading the tags on each garment, dressing rooms would recognize what was brought in and make recommendations of matching accessories as well as similar products that patrons might consider. Customers could check inventory, and staff sporting PDAs could do the same. A dressing room camera would allow clients to see their front and back view side-by-side as they tried on clothes.

It all sounded slick, but execution of the vision was disastrous. Customers didn’t understand the foot pedals that controlled the dressing room doors and displays. Reports surfaced of fashionistas disrobing in full view, thinking the walls went opaque when they didn’t. Others got stuck in dressing rooms when pedals failed to work, or doors broke, unable to withstand the demands of the high-traffic tourist location. The inventory database was often inaccurate, regularly reporting items as out of stock even though they weren’t. As for the PDAs, staff reported that they “don’t really use them anymore” and that “we put them away so tourists don’t play with them.” The investment in Prada’s in-store technology was also simply too high, with estimates suggesting the location took in just one-third the sales needed to justify expenses.

The Prada example offers critical lessons for managers. While it’s easy to get seduced by technology, an information system (IS) is actually made up of more than hardware and software. An IS also includes data used or created by the system, as well as the procedures and the people who interact with the system. Getting the right mix of these five components is critical to executing a flawless information system rollout. Financial considerations should forecast the return on investment (ROI)—the amount earned from an expenditure—of any such effort (i.e., what will we get for our money and how long will it take to receive payback?). And designers need to thoroughly test the system before deployment. At Prada’s Manhattan flagship store, the effort looked like tech chosen because it seemed fashionable rather than functional.

**Key Takeaways**

- Zara store management and staff use PDAs and POS systems to gather and analyze customer preference data to plan future designs based on feedback, rather than on hunches and guesswork.
Zara’s combination of vertical integration and technology-orchestrated supplier coordination, just-in-time manufacturing, and logistics allows it to go from design to shelf in days instead of months.

Advantages accruing to Inditex include fashion exclusivity, fewer markdowns and sales, lower marketing expenses, and more frequent customer visits.

Zara’s IT expenditures are low by fashion industry standards. The spectacular benefits reaped by Zara from the deployment of technology have resulted from targeting technology investment at the points in the value chain where it has the greatest impact, and not from the sheer magnitude of the investment. This is in stark contrast to Prada’s experience with in-store technology deployment.

While information technology is just hardware and software, information systems also include data, people, and procedures. It’s critical for managers to think about systems, rather than just technologies, when planning for and deploying technology-enabled solutions.

Moving Forward

The holy grail for the strategist is to craft a sustainable competitive advantage that is difficult for competitors to replicate. And for nearly two decades Zara has delivered the goods. But that’s not to say the firm is done facing challenges.

Consider the limitations of Zara’s Spain-centric, just-in-time manufacturing model. By moving all of the firm’s deliveries through just two locations, both in Spain, the firm remains hostage to anything that could create a disruption in the region. Firms often hedge risks that could shut down operations—think weather, natural disaster, terrorism, labor strife, or political unrest—by spreading facilities throughout the globe. If problems occur in northern Spain, Zara has no such fallback.

In addition to the operations vulnerabilities above, the model also leaves the firm potentially more susceptible to financial vulnerabilities during periods when the euro strengthens relative to the dollar. Many low-cost manufacturing regions have currencies that are either pegged to the dollar or have otherwise fallen against the euro. This situation means Zara’s Spain-centric costs rise at higher rates compared to competitors, presenting a challenge in keeping profit margins in check. Rising transportation costs are another concern. If fuel costs rise, the model of twice-weekly deliveries that has been key to defining the Zara experience becomes more expensive to maintain.

Still, Zara is able to make up for some cost increases by raising prices overseas (in the United States, Zara items can cost 40 percent or more than they do in Spain). Zara reports that all North American stores are profitable, and that it can continue to grow its presence, serving forty to fifty stores with just two U.S. jet flights a week. Management has considered a logistics center in Asia, but expects current capacity will suffice until 2013. Another possibility might be a center in the Maquiladora region of northern Mexico, which could serve the U.S. markets via trucking capacity similar to the firm’s Spain-based access to Europe, while also providing a regional center to serve expansion throughout the Western Hemisphere.

Rivals have studied the Zara recipe, and while none have attained the efficiency of Amancio Ortega’s firm, many are trying to learn from the master. There is precedent for contract firms closing the cycle time gap with vertically integrated competitors that own their own factories.
Dell (a firm that builds its own PCs while nearly all its competitors use contract labor) has recently seen its manufacturing advantage from vertical integration fall as the partners that supply rivals have mimicked its techniques and have become far more efficient. In terms of the number of new models offered, clothing is actually more complex than computing, suggesting that Zara’s value chain may be more difficult to copy. Still, H&M has increased the frequency of new items in stores, Forever 21 and Uniqlo get new looks within six weeks, and Renner, a Brazilian fast fashion rival, rolls out mini collections every two months. Rivals have a keen eye on Inditex, with the CFO of luxury goods firm Burberry claiming the firm is a “fantastic case study” and “we’re mindful of their techniques.”

Finally, firm financial performance can also be impacted by broader economic conditions. When the economy falters, consumers simply buy less and may move a greater share of their wallet to less-stylish and lower-cost offerings from deep discounters like Wal-Mart. Zara is particularly susceptible to conditions in Spain, since the market accounts for nearly 40 percent of Inditex sales, as well as to broader West European conditions (which with Spain make up 79 percent of sales). Global expansion will provide the firm with a mix of locations that may be better able to endure downturns in any single region. Recent Spanish and European financial difficulties have made clear the need to decrease dependence on sales within one region.

Zara’s winning formula can only exist through management’s savvy understanding of how information systems can enable winning strategies (many tech initiatives were led by José Maria Castellano, a “technophile” business professor who became Ortega’s right-hand man in the 1980s). It is technology that helps Zara identify and manufacture the clothes customers want, get those products to market quickly, and eliminate costs related to advertising, inventory missteps, and markdowns. A strategist must always scan the state of the market as well as the state of the art in technology, looking for new opportunities and remaining aware of impending threats. With systems so highly tuned for success, it may be unwise to bet against “The Cube.”

**Key Takeaway**

- Zara’s value chain is difficult to copy; but it is not invulnerable, nor is future dominance guaranteed. Zara management must be aware of the limitations in its business model, and must continually scan its environment and be prepared to react to new threats and opportunities.
Exercise:

Make a presentation that:

- Summarizes the contents of this document
- Identifies data sources internal to the institution that can be used for data mining
- Identifies problems/business opportunities that could be fully or partially addressed using data mining techniques
- Proposes possible external data sources that may complement internal data sources
- Describes what kind of knowledge/patterns would be interesting to try to discover
- Proposes (as far as possible) data mining techniques that could be adequate to solve discover this type of knowledge/patterns

Note: this case study was extracted from the book Information Systems: A Manager’s Guide to Harnessing Technology, by John M. Gallaugher, Ph.D. For more info see: http://www.gallaugher.com/chapters

References


