Breathing Shoes and Complementarities: How Geox has rejuvenated the footwear industry

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We apply the related notions of complementarities and performance landscapes to study strategic positioning in the footwear industry. We use this theoretical framework to analyze Geox, an Italian footwear manufacturer that, in less than a decade, has grown to be one of the world largest brown shoe manufacturers, outperforming the industry in terms of market and financial results. We describe Geox’s choices within four stages along its value chain: product design, marketing and communication, production and supply chain, distribution and retail. We show that, though grounded on product innovation (the Geox breathes® patented system which allows ventilation in waterproof rubber sole shoes), Geox’s competitive advantage has not grown out of operational excellence in single activities in the business, but, rather, derives from a unique and consistent configuration of complementary activities. Such configuration represents an innovative strategic position and corresponds to a high performance peak in the footwear industry performance landscape. The case study provides anecdotal evidence in support of complementarity-based economic theory, showing how complementarities among activities help understand increasing returns to scale, firm size and business growth even without the standard assumptions about economies of scale. It also confirms that, in the presence of complementarities, rivals find strategy imitation and reverse engineering difficult due to the unique nature of the relationships among complementary variables. The final section draws some implications in terms of strategic management and organization design.
The views expressed herein are the author’s responsibility and do not necessarily reflect those of the MIT Industrial Performance Center or the Massachusetts Institute of Technology.
Breathing Shoes and Complementarities:
How Geox has Rejuvenated the Footwear Industry

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Abstract
We apply the related notions of complementarities and performance landscapes to study strategic positioning in the footwear industry. We use this theoretical framework to analyze Geox, an Italian footwear manufacturer that, in less than a decade, has grown to be one of the world largest brown shoe manufacturers, outperforming the industry in terms of market and financial results. We describe Geox’s choices within four stages along its value chain: product design, marketing and communication, production and supply chain, distribution and retail. We show that, though grounded on product innovation (the Geox breathes® patented system which allows ventilation in waterproof rubber sole shoes), Geox’s competitive advantage has not grown out of operational excellence in single activities in the business, but, rather, derives from a unique and consistent configuration of complementary activities. Such configuration represents an innovative strategic position and corresponds to a high performance peak in the footwear industry performance landscape. The case study provides anecdotal evidence in support of complementarity based economic theory, showing how complementarities among activities help understand increasing return to scale, firm size and business growth even without the standard assumptions about economies of scale. It also confirms that, in the presence of complementarities, rivals find strategy imitation and reverse engineering difficult due to the unique nature of the relationships among complementary variables. The final section draws some implications in terms of strategic management and organization design.

Keywords: complementarities, performance landscape, footwear, strategic position
1. The Geox’s story

A wine maker by ancestry and training, Mario Moretti Polegato stumbled upon his destiny as inventor and entrepreneur 13 years ago, during a wine convention in Reno, Nevada. To relax between conference sessions, he went hiking in the Rockies, during which time his feet began to sweat and burn. So, he took out his pocket knife and cut holes in each of the soles of his sneakers to let the heat out.

Back in Italy, he realized that no one had successfully solved the problem of how to design shoes that both kept out water and ventilated air. He spent three years studying, experimenting and doing research and development, eventually creating Geox, a shoe which combines a perforated rubber sole with a sophisticated membrane. He patented it and knocked on the doors of the big footwear manufacturers: Nike, Adidas, Timberland and others. They all turned him down. Instead of giving up, Moretti Polegato took on five employees and started production on his own.

Today, only 10 years later, Geox has become one of the world’s largest manufacturer of “brown shoes” (Table 1), outperforming the industry in terms of profitability and business growth (Figure 1 and 2), and becoming an internationally celebrated case of business innovation¹.

Such success is striking, given the fact that Geox is a young company, in a mature, global and extremely competitive industry, and is based in Italy, a country that, albeit traditionally strong in footwear, seems to be lagging behind in terms of innovation and growth. Yet, despite the skepticism of some financial analysts, and notwithstanding the strong Euro, thus far Geox’s key financials look so good that a legitimate question arises: how did they do it?

2. Seeking distinctive ways of competing in mature industries

When we see a company outperform competitors in a given industry, it’s because it has created a difference that it can maintain. The essence of strategy is exactly this: choosing a different position within an industry, that involves a unique configuration of activities (Porter, 1996). The uniqueness of such a configuration rests not only on which activities a company performs and how it configures each of them, but also on how such activities relate to one another (Milgrom and Roberts, 1995; Whittington and Others, 1999).

In fact, while achieving excellence in performing individual activities or functions is important, strategy is about combining activities in an original fashion (Mintzberg, Ahlstrand and Lampel, 1998). Sustainable competitive advantages are created from the way activities fit and reinforce one another (Miller, 1996).

Unfortunately, different strategic positions and unique configurations of activities are neither known a priori by managers nor able to be be picked “off the shelf”. Identifying them is a complex exercise, requiring vision, insight, effort and risk taking.
In most industries, few firms have the capabilities, the determination, and the good fortune to be able to pursue strategies that are diverse (McGahan, 1999). More often, they do not pursue diversity and behave as if there were only one possible and “right” strategy (Porter and Siggelkow, 2000). But, by doing so, they navigate the “Red Oceans” of the known market space (Kim and Mauborgne, 2004). They oblige themselves to fight for a greater share of existing demand, to accept the current industry boundaries, and to obey the competitive rules of the game. Usually, they concentrate on incremental innovation, on performance improvement via best practice benchmarking, on introducing piecemeal change to optimize single activities, and on imitating rivals. But, as the space gets increasingly crowded, prospects for profits and growth are reduced, especially for newcomers.

These behaviors are often evident in mature industries like textiles, apparel, footwear, and eyewear, where the potential applications of new technologies are less valuable, or, at least, less immediately straightforward.

Consider, for example, the Italian footwear industry (but similar trends can be observed in other European countries, in the US, as well as in other mature industries (Faust, Voskamp and Wittke, 2004). For decades, Italian companies (Ferragamo, Magli, Pollini, Rossetti, Rossi, Tod’s, etc.) have successfully competed by carving out a strategic position characterized by a market niche focus, fashion based reputation, continuous style innovation, craft-like quality, and domestic production. But now, challenged by globalization as never before, many of these companies have lost their edge or even experienced sharp declines in profitability. Mitigation strategies have failed, including investment in brand and retail, defensive strategies based either on clinging desperately to the Made in Italy label, or on moving production abroad to reduce cost. These initiatives have rarely proven successful in the long run, usually because they have not created a value difference for customers, and rather produced “more of the same things”.

Why does this happen? Is finding new strategic positions an impossible mission for companies operating in such mature industries as footwear? Are they doomed to be “hollowed out”, to become the easy prey of some multinational retailer, or simply to die? Is it inevitable, for those who survive, to accept thinning margins and to move production around the world relentlessly, seeking for ever lower cost sourcing? And what are the chances for courageous entrepreneurs who start a business in this industry to grow it successfully? Do these companies have options other than rushing production to China or evoking the “magic” of creativity and style?

This article addresses these questions analyzing the Geox case. We believe that Geox has defined a new strategic position in the footwear industry. Geox’s “blue ocean strategy” (Kim and Mauborgne, 2004): a) has created a somewhat uncontested market space where competition is less relevant by changing the traditional market segmentation rules; b) involves a unique configuration of activities, removed from the stereotype of the Italian “fashion” footwear manufacturer, but also significantly different from other US and European competitors; and c) has broken the value/cost trade-off, succeeding in the feat, impossible for most other competitors, of serving successfully a large, diverse customer base with a wide variety of product lines and styles.

Though grounded in product innovation, Geox’s competitive advantage has not grown out of operational excellence in single activities in the business, but, rather, is derived from a unique and consistent configuration of complementary activities.

After providing a brief methodological note on the case research (section 3), we propose a theoretical framework that draws upon recent strategy research that uses the notions of complementarity and performance landscape (section 4). We then apply the framework to the Geox case. First, we describe Geox’s choices within four important stages along its value chain: product design, marketing and communication, production and supply chain, distribution and
retail (section 5). Then, we illustrate some of the complementarities among these activities providing examples of how the adoption of one makes the adoption of others more attractive (section 6). We also contrast Geox’s strategic position and configuration of activities with that of its competitors. The final section draws some implications in terms of strategic management and organization design.

3. Methods and data

We obtained data for the case study from several primary and secondary sources. Over a period of two years (September 2002 – September 2004), we conducted more than 20 personal interviews, ranging from one to several hours with members of the Geox management team, including the President (founder and owner), the CEO, the CFO, the HR Director, and several other functional directors. Two graduate students gathered other data from secondary sources (approximately 100 articles about Geox in trade journals and magazines, in addition to market and financial analysts’ reports, which flourished as the company applied to be listed on the Milan stock exchange) and company documents (annual reports and documents provided by company management). Early drafts of the case study were circulated among members of Geox’s management. They provided additions and corrections on factual data in the case. We augmented this case study with other studies on the footwear industry and used subsequent discussion with industry experts to create an independent assessment of Geox’s strategic positioning.

We conducted the interviews with the aim of identifying the complementarities among Geox’s choices and activities. For this purpose, elaborating on the research results of previous similar studies (Milgrom and Roberts, 1995; Brynjolfsson, Renshaw, Van Alstyne, 1997; Raff, 2000; Siggelkow, 2001, 2002a), we developed a research protocol defining the criteria and circumstances under which complementarities can be said to exist.
4. Theory

In order to understand the reasons of Geox’s success, we draw upon the stream of strategy research that studies the relationship between sustainable competitive advantages and the existence of complementarities within activity systems (Porter, 1996; Porter and Siggelkow, 2000). The theoretical framework underlying this approach uses two related notions: “complementarities” and “performance landscape”.

Milgrom and Roberts (1990a, 1990b) define complementarities as the relationship between two or more activities implying that “doing more of any one of them increases the returns to doing more of the others”\(^2\). Overall, complementarity theory suggests that high performing firms are likely to combine a consistent set of activities and that the returns to such full configuration of activities are greater than the sum of the individual returns (Whittington and Others, 1999). Interestingly, Milgrom and Roberts (1995) show how complementarities impact on profitability, while Milgrom, Qian and Roberts (1991) demonstrate that complementarities among activities can account for business growth without any of the usual assumptions in the growth literature about economies of scale (Momentum Theorem).

The notion of performance landscape, originally developed in evolutionary biology, was refined and formalized by Kauffman (1993) and then applied to business studies in the field of strategic management and organizational design and evolution (Levinthal, 1997, Levinthal and Warglien,

\(^2\) In a production or profit function two or more variables are complements (substitutes) if the cross-partial second derivatives are positive (negative). For functions defined in non convex domains (more general case, of interest in this application), lattice theory (Topkis, 1978, 1998) defines two or more variables as complements (substitutes) if the function is supermodular (submodular). Intuitively, this happens when raising one of the variables increases (reduces) the return to raising the others. More formally, if \(f(x,y,z)\) is a payoff function, \(x\) and \(y\) are decision variables and \(z\) a vector of variables, the payoff to increasing simultaneously the variables must be no less than the sum of the payoffs from increasing each of them individually. Analytically, the concept of supermodularity can be formulated as follows (Porter and Siggelkow, 2000). \(x\) and \(y\) are complements if:

\[
\begin{align*}
f(x_j, y_j, z) - f(x_i, y_j, z) &> f(x_j, y_i, z) - f(x_i, y_i, z) \\
&\text{for all } x_j > x_i; y_j > y_i \text{ and all } z
\end{align*}
\]
In our simplified analysis, the performance landscape is a multidimensional space in which the dependent variable is a measure of business performance (for example, business growth and/or profitability), while the independent variables are the different choices that a firm can make with regard to a given activity (for example, the breadth of the product range or the focus of innovation and R&D investment). If the independent variables are N, the performance landscape maps each set of N choices/activities onto a performance value.

The concept of performance landscape provides a suggestive way to illustrate alternative strategic options and positions within an industry. Figure 3 illustrates alternative possible configurations of the performance landscape when N=2.

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Figure 3 approximately here
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Given the environmental conditions, the concept encompassing all variables impacting on the value of a particular activity configuration and hence a firm’s relative profitability (e.g., customer preferences, available technologies, and competitors’ actions), the appropriateness of a set of choices, is represented by the height of a particular point on the landscape.

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3 The adoption of the notion of performance landscapes in business studies has flourished in the last decade. The early applications were more descriptive in nature and strictly followed the assumptions of the general model (Kauffman, 1993), e.g.: the interactions among activities/choices are distributed randomly. Lately, some studies have developed more realistic assumptions on the nature of the interaction among activities (Rivkin and Siggelkow, 2002; 2003), showing the effects of such patterned interactions and of different design choices on the organization’s performance.

4 To keep the framework simple, we focus on static analysis and skip the discussion of how exogenous factors impact on the performance landscape. As suggested by Siggelkow (2001, 2002a, 2002b) a dynamic approach implies a more articulated framework, the distinction between internal and external fit and the specification of other parameters of the performance landscape.
If choices are complementary, or consistent, their combination corresponds to a performance peak in the landscape. The stronger these complementarities are, the steeper is the associated peak. Alternatively, a set of choices is defined to be consistent if changing any single choice (ceteris paribus) implies a performance decline.

The notions of complementarities and performance landscape allow capturing the holistic nature of strategy and the effect of complementary choices on business performance. A strategic position corresponds to the situation in which a firm chooses a consistent configuration of (complementary) activities, thus locating itself on a performance peak of the landscape.

Within an industry, there are usually multiple performance peaks, characterized by different heights, and, correspondingly, different strategic positions involving different configuration of activities.

But performance peaks are not known ex-ante by industry players, and finding them requires costly and risky exploration. Nonetheless, discovering a new performance peak (and, therefore, a strategic position) can be extremely remunerative, under certain circumstances, if compared to the alternatives of either refining an existing configuration of activities or trying to imitate those of competitors (Rivkin and Siggelkow, 2003).

A new strategic position within an industry largely corresponds to a “Blue Ocean Strategy” (Kim and Mauborgne, 2004) i.e. a strategy that redefines or alters the boundaries of an existing industry.

Rivkin (2000) suggests another way in which complementarities can contribute to a sustainable advantage: strategic positions based on complementarities among large sets of choices are more complex. This complexity (defined as the number of elements in a strategy and the interactions among those elements) helps explaining why some firms maintain superior profitability over
longer periods, and why they resist imitation despite a) the leaking of information about new products and processes to rivals; and b) extensive public scrutiny of their strategies.

Porter and Siggelkow (2000) further develop this point focusing on the nature, and not only the number, of the elements and interactions. They underline the importance of contextuality, intended as the strategy-specific nature of both activities and interactions. Strategy specific activities take a higher value within the particular strategy a firm is pursuing, i.e. depending on the configuration of other activities the firm has adopted.

The interactions among activities can also be contextual in the sense that their nature may be determined by other activity choices made by a firm. Strategy-specific activities are inherently difficult to imitate, because they imply firm-specific knowledge (Williamson, 1975). Their imitation is overly costly and force copycats to sub optimize their current choices given their own strategic position. But sets of strategy-specific activities with contextual interactions are even more difficult to imitate because the relationships among complementary variables are opaque (causal ambiguity) and intangible (social embeddedness). And, until imitators are able to reverse engineer and achieve the whole system, they don't get the returns of the different strategic position.

6. Geox’s configuration of activities

To use the terminology of the framework, we contend that Geox, thanks to a unique configuration of (complementary) choices, has defined a new strategic position and, as a result of that, is currently located on a high peak in the footwear industry performance landscape. Geox’s configuration of activities builds on patented product innovation and makes the most out of leveraging on complementary choices as regards marketing and communication, production and supply chain management, and distribution and retail. In this section we analyze how Geox has
configured its main activities, while section 6 contrasts Geox’s strategic position with that of its competitors and illustrates the interactions among its activities, showing their complementary nature.

6.1. Geox concept: “breathing” shoes for foot wellness

Geox has become famous all over the world as “the shoe that breathes”.

The original Geox breathes® patented system is a combination of a perforated rubber sole and an innovative membrane. Micro-holes in the rubber outsole let perspiration from the feet out of the shoes, while the protective breathable membrane keeps water out and the feet dry. The membrane is made of a special micro-porous material which absorbs sweat through the insole and lets it out in the form of water vapor. This process rests on the fact that the membrane's micro-pores are larger than water vapor molecules, but smaller than water droplets - hence keeping water out and the feet dry.

Geox’s shoes offer to customers the benefit of eliminating humidity from the inside of the shoe (according to Geox’s R&D our feet produce, annually, approximately 100 liters of sweat). Since it is natural to sweat through the feet, but it is unhealthy to keep the sweat inside the shoes, the Geox system allows balancing the ideal microclimate inside of the footwear, keeping the feet dry and correctly heated.

6.2. Research and Development

Since the first patent, dating back to the early 1990s, Geox has continued innovating, investing heavily in research and development. The Geox’s Research and Development laboratory is a state of the art facility. In temperature controlled environments, shoes are tested for different ambient conditions. Sweat simulators measure humidity by injecting water into heated shoes, mimicking
glands in the feet. Walkmeters apply tens of kilos of pressure to shoes that are then taken on a 200-km endurance walk. Fleximeters put Geox patented soles through rigorous test of tens of thousands of flexions. Experiments and tests are performed on materials, processes and products in disciplines ranging from chemistry to physics, to orthopedics, to foot ergonomics. Many research activities result from formal cooperation with Italian and European university departments and international research centers.

In 2003 Geox invested 7.5 million € in R&D, a little less than 3% of net sales; an unusual proportion for a brown shoe manufacturer. The R&D organization is articulated, but not bureaucratic. Scientists and technicians work in teams, are fully interchangeable and systematically rotate jobs.

This conspicuous research effort has resulted in a stream of patented inventions and innovations related to the original concept, as well as many relating to materials (e.g. plasma applications), products (e.g.: the breathable leather shoe), processes (e.g. glue saving assembly and sewing systems allowing improved shoe perspiration and flexibility), equipment and machinery (e.g. for shoe sole molding and injection). This series of corollary patents developed around the original patent have also the function to make it impossible, for competitors, to simply copy the product when the original patent expires. In fact, Geox currently has some thirty patents and the original one, which expires in 2009, will be practically unusable by competitors because of subsequent improvements.

6.3. Marketing and communication

Geox currently sells its shoes in 68 countries and offers to customers a full range of styles and models for different uses. Its strategy has re-defined the market space in the footwear industry, because its unique selling proposition (foot wellness thanks to “breathing shoes”) appeals and
applies to most of the market segments, as currently defined in the industry. Whereas most players serve one or few segments (e.g.: men’s, women’s, children’s, casual, classic, fashion, sandals, boots, sport shoes, etc.), choosing the price range contingent on the target customer base, Geox leverages on the “breathing shoe” concept to serve a larger customer base, present in many of the market segments traditionally defined in the industry.

Thus, Geox competes with world leaders in comfort and casual footwear like Nike (Cole Haan), Reebok (Rockport), C&J Clark (Clarks), Timberland, Ecco, Genesco (Jarman, Johnston & Murphy) and Mephisto, as well as with segment “specialists” as Florsheim, Brown Shoe Company, Wolverine Worldwide (Hush Puppies, Coleman), Dexter, Skechers, Kenneth Cole, R. Griggs (Doc Maertens), Tod’s and Birkenstock.

Communication and advertising have played a fundamental role in Geox’s strategy, with a budget of approximately 10% of revenues, and have contributed to building brand awareness and arousing consumer curiosity about its products.

Contrary to most competitors, the Geox communication strategy neither relies on style and fashion nor simply appeals to the “Italian style” or other trendy attributes, but relies on the product’s technical characteristics. It highlights the unique selling proposition, the vapor action, the patent’s symbol, and the word “breathe”, all of which convey the product’s differentiating attributes, as well as the technology and unique benefits that Geox offers its customers. The advantage of focusing on a single message is twofold: a) it points out the difference offered by the Geox product, namely that it resolves a problem that other shoes do not; b) it makes it possible to use the same message and image to publicize the product all over the world and in all market segments (men, women, kids, dressier shoes, leisure shoes etc.), increasing the ease of identifying the brand and therefore also its value. The communication mix used to promote this message is also very simple yet effective: advertising, sales promotions, public relations,
sponsorships and one-to-one sales. These channels are very different means of communication, but, at the same time, they are complementary and synergistic. On TV, for example, it is possible to explain in detail the patent and its added benefits, things that are difficult to communicate with the printed word. Moreover, through television advertising, sales can be considerably pushed at specific times of the year. The press, instead, plays a background role, maintaining the brand’s constant visibility. Billposting is used to support the vast sales network and emphasize their widespread presence, where necessary catalyzing sales.

As evidence of this, Geox’s advertising campaigns typically cover a whole range of European, North American and Asian newspapers and magazines, from financial to sports from men to woman, to fashion. In fact, although Geox’s current target market is primarily mid to high-income consumers who look for comfort and style in their footwear, the potential customer base includes all ages and lifestyles since, as the company notes, no one likes to have his feet wet and smelly.

Interestingly enough, pricing is consistent with the idea of a newly defined, extended customer base. Most footwear producers either try to elude low cost competition by targeting more affluent customers and by differentiating their products in terms of style and quality shoes so that they can charge a premium price; or they struggle to drive down costs and prices keeping control downstream of the supply chain (up to direct control of retail) and source aggressively in low cost countries. In the first case they sacrifice volumes, in the second case margin. Curiously, Geox has grown and remained profitable selling shoes in the affordable $120-$325 price range.
6.4. Product design, manufacturing and supply chain management

Geox’s shoes sell not only because they “breathe”, but also because they are stylish and reasonably priced. This is possible thanks to Geox’s product design strategy and production system.

Although product innovation is concentrated on the shoe sole, Geox’s managers are aware that upper aesthetics and style remain important in customers’ preferences. Nobody would buy “breathing shoes” that look ugly. Therefore, Geox’s does its best to design fashionable shoes, getting direct insights from the market (e.g.: through its own retail network), rapidly imitating industry trend setters\textsuperscript{5}, and quickly getting the new models to the market. As regards the design of the upper, Geox has chosen to be a “fast follower”. It designs most of the new products (season and flash collections) in Italy, taking advantage of the externalities deriving from the location within fashion trend setting industrial districts in Veneto and Marche. From there, it runs small batch productions, used to pilot test the market. These pilot runs are rapidly distributed in key retail locations to test customers’ preferences, providing feedback on styles, colors and prices. Depending on the success of the pilot test, collections are adapted. Then, large scale production and distribution rapidly follow.

Geox’s production can be conceived as an integrated manufacturing system made up of an international constellation of smaller, self-contained and semi-autonomous production subsystems (owned plants or suppliers), each responsible for the manufacturing and delivery of one or more styles of the collection.

This production system reflects an articulated supply chain strategy, with sourcing and production decisions contingent on market segment, product type and cost or time constraints. Thus, production is not simply moved around the world according to labor cost dynamics. Rather, flexibility, speed and quality related considerations drive the supply chain configuration and the sourcing decisions.

For example, the shoe sole injection/molding process is usually concentrated in a few locations both for efficiency (it is highly automated, with economies of scale dominant) and confidentiality (know how protection) reasons. The upper construction and sole bonding processes are, instead, more dispersed in smaller units.

In Romania, Geox owns a large factory in Timisoara, built in 1997, which today produces some 2.5 million pairs of shoes a year and employs over 1,000 people. The overall investment exceeded 10 million Euro and covers an area of about 25,000 square meters. Since 1997, the factory has gradually been enlarged and integrated with the creation of an internal shoe-sole molding and injection shop, and Italian suppliers have progressively moved in with ancillary plants around the structure to ensure rapid restocking. Around the plant, Geox has de facto developed a “mini footwear industrial district”, attracting various Italian suppliers (especially from Veneto and Marche), who have specialized in single stages of the manufacturing process, such as cutting or assembly. Current production is about 7,000 pairs a day, with quality levels matching Italian standards. Romanian production currently amounts to approximately one third of total volumes.

6 Differently from the construction of the upper, the shoe sole manufacturing process (especially for rubber soles) is capital intensive. Since the very beginning, Geox has adopted flexible automation technologies (developing and patenting the relevant ones) which have allowed to produce both increasingly larger volumes and a wide variety of soles with negligible switching and set up costs.

7 Geox’s commitment to Romania has contributed to the local economy development. In recognition, Moretti Polegato has been even made an honorary Romanian consul.
Whereas another, smaller part of the production is sub-contracted, to other Romanian, Slovakian, Mexican and East Asian producers, the larger volumes (approximately 55% of Geox’s total volumes -100% of sport shoes) are produced in China, a country to which Geox is strongly committed, to the point that it has recently a) located part of R&D in China, b) signed long term manufacturing agreements in China, and c) started developing a proprietary retail network.

Geox has recently teamed up with Aokang Group, a shoemaking company in China based in Wenzhou City in east China's Zhejiang Province and the second largest company regarding international design, and production and sales of leather shoes around the world. Aokang Group is a private business established 15 years ago that currently produces more than 10 million pairs of leather shoes annually. It has more than 30 subsidiaries, over 2,000 franchise stores and sale outlets across China, and has opened agencies in Italy, Spain, the United States and Japan.

As an agent of Geox, Aokang Group has manufactured some 0.5 million pairs of Geox leather shoes during 2004, a figure expected to ramp up to 1.5 million in 2005 and grow even further in the future. As part of the alliance, Geox has recently moved its Asian research and development center from Hong Kong to Dongguan of South China's Guangdong Province.

The alliance with Aokang is based on a rigid license enforcement system and on continual investment in research and development to strengthen patents, making it hard for other Chinese producers to copy.

6.5. Distribution and retail

Geox distributes its products worldwide through two different channels: a wide international circuit of about 8000 independent multi-brand shops and a network of single-brand Geox Stores. This second type of distribution allows Geox to leverage its brand and to keep a more direct relationship with customers, systematically monitoring their tastes and preferences. Currently,
Geox has some 250 stores, 80% of which are run under franchising agreements, while 20% are directly run and owned flagship stores, strategically located in the heart of the most important cities in the world.

Geox’s commercial strategy has been incremental and somewhat prudent. Firstly, it penetrated and saturated the domestic market. Then, it attacked the adjacent European markets, consolidating significant shares in Germany, Spain, France and, lately, the UK and Poland. In each country, it has first gained a significant market share through third party distribution and then built its own retail network. Only when its market share was large enough, Geox dared attack the relevant market leader (e.g. Mephisto in France).

After consolidating its presence in Europe, Geox has recently turned its attention to the US and China. As regards the US market, Geox has signed a major distribution agreement with Nordstrom and, at the same time, opened flagship stores in key locations, starting with Madison Avenue in New York.

In China, Geox has opened 10 stores in the Shanghai area, but also sells its shoes through the Aokang retail network, which consists of 2,000 outlets.

7. Complementarities and strategic fit

To keep the application of the theoretical framework simple, we start by contrasting Geox’s strategic position with those of its competitors in the footwear industry (Figure 4). Initially, we limit the analysis of the complementarities among the different sets of activities to two of them: the focus of product innovation efforts (and R&D investment) and product range (number and variety of styles, types of functional uses, target customer base). Similarly, we will then expand the discussion to the other activities of Geox’s configuration.
7.1. The "red" strategic position: where competitors crowd

Most of Geox’s direct competitors\(^8\) tend to have a strategic position distinguished by two characteristics: a) they tend to be specialists (produce within a narrow product range) and compete in one or few market segments (by customer group - e.g. men’s, women’s, kids’, or product type – e.g. sport, casual, classic or dressy footwear, sandals, boots, sneakers, etc.); b) they innovate the product in terms of design, style (fashion) and materials, mainly focusing on the upper of the shoe.

These two choices are complementary. They reinforce each other because they leverage knowledge of specific customers (the style of the upper varies greatly depending on the segment; for example dressy shoes for women versus men; sandals versus boots; brown shoes versus sneakers), and because they allow focusing R&D investment on new design and materials. Here players race (and invest) to design and produce the most fashionable shoes of a certain kind, or, at least, those that, during a given season, will likely meet the tastes of the target customer groups. Investment in style (brand included) is also intended to strengthen the specificity and originality of the company product, increasing its differentiation in the chosen segment. Most of the companies pursuing this strategic position try to improve operational excellence in each activity they perform and try to exploit the corresponding complementarities. Those who are able to make it reach a peak of the industry performance landscape (as stylized in Figure 4).

However, the number of possible styles and materials for shoes is not infinite. Similarly, given the size of the customer base in each market segment, the returns to investing in style, image and

\(^8\) For example, Mephisto focuses on men’s comfort shoes, Timberland and Clark’s on casual outdoor shoes (though Clark’s has a wider scope on the domestic market), Ecco on men’s and women’s comfort shoes, Skechers on casual/trendy youngsters’ shoes, Birkenstock on anatomic sandals, Bakers on young women’s shoes, Wolverine World Wide on casual shoes, slippery and boots, R.Griggs (Dr. Maertens) on boots, Johnston & Murphy on men’s shoes. The majority of Italian footwear manufacturers (Tod’s, Ferragamo, Magli Pollini, Rossetti, Rossi, Superga, Panther, etc.) are also extremely focused by product type or customer group, usually targeting the high end of the market.
brand awareness are diminishing. Moreover, once fashion has decided what is trendy for a given customer group and/or product type (e.g.: round or point toed shoes), the convergence of competing collections is inevitable.

Crowded with competing firms, it is likely that the peak on the considered performance landscape is not high (smaller margins and lower growth potential).

Kim and Mauborgne (2004) would call this a typical “Red Ocean” situation, where “products tend to turn into commodities and increasing competition turns the water bloody”. This situation corresponds to the lower peak in the industry performance landscape sketched in Figure 4.

7.2. The “blue” strategic position: where Geox flies

Geox’s strategy is diverse, and its configuration of activities is unique. The activities/choices are not only different from those of competitors, but also the way in which these activities and choices interact is distinctive.

In terms of product innovation, Geox has focused its efforts on the application of new technologies to the shoe outsole, not on the upper style and design. The product range Geox offers is wide in scope and targets a large customer base, classified into the traditional industry market segments (men’s, women’s, children’s, classic, comfort, sporty, dressy, boots, sandals, etc.).

The combination of these two activities/choices (and of the others – later analyzed) represents a new strategic position and a unique configuration of complementary activities in the footwear industry. It is a different strategic position because it allows Geox to offer a unique product (the “shoe that breathes”), that is reasonably stylish and good-looking (the fast follower, Zara-like upper-shoe design strategy), to a wide customer base (sweaty feet are not confined to a single class, age, sex or type of use), at an affordable price (thanks to lower production costs deriving
from economies of scale, the adoption of flexible automation technologies in rubber shoe sole manufacturing, and an international supply network). In this new market space (a “Blue Ocean” (Kim and Mauborgne, 2004)), traditional competition, based on brand/style or price based, is less relevant.

However, most importantly, Geox’s configuration of activities is unique, because they interact differently, leading to synergistic results. It is this combination of activities/choices that has led Geox to such outstanding achievements.

Indeed, in choosing to focus product innovation (and investment) on shoe-sole related technology, Geox has addressed a real problem; it has capitalized on the common need of those who wear rubber sole shoes -to feel better and be healthier-, and has offered a unique benefit to these customers.

However, it is only when this choice (product innovation and investment concentrated into shoe-sole related technology) is combined with the choice of offering a full range of product lines and styles (targeting a larger customer base) that this strategy begins to produce particularly positive effects.

During our fieldwork, we took a closer look at how Geox’s activities reinforce each other (why they are complementary). We discovered that Geox’s patented shoe-sole technology (“the shoe that breathes”) is partly independent on the design characteristics of the upper. Therefore, it can be applied to different products and functional uses, to the satisfaction of a wide (theoretically unlimited) customer base, no matter what sex, age, and lifestyle⁹.

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⁹ Surely, even soles are diverse and change over time as the result of fashion. However, these changes are comparatively less relevant than those affecting the upper and can be more easily and readily managed, both in terms of design and manufacturing, through technology. For this reason, and because of the competitive shield represented by patents Geox is less affected by obsolescence (which is instead rapid when innovation is concentrated on uppers, for which fashion changes at least every season and imitation is almost instantaneous).
Geox managers conceive the “breathing” shoe-sole as a type of “technological platform” upon which the design and manufacture of footwear that meets the needs of children, men, women, sportsmen or businessmen in different seasons and for different functional uses can be built. Conversely, the application of the patented technology to a wide variety of styles increases the return of the investment in the patented product technology, lowers the unit R&D cost, and creates economies of scale in manufacturing and marketing. Thus, large investment in manufacturing (such as the Timisoara plant) or in advertising and communication (10% of net sales) become more attractive because of the interaction between product innovation and market positioning choices.

We believe that this strategy of selling unique products that satisfy an increasing number of diverse customers represents a new strategic position in the industry that allows Geox to generate significant and increasing cash flows (the higher performance peak in Figure 4). Geox has chosen to reinvest systematically these cash flows in further product innovation, in manufacturing equipment and facilities, in marketing and in advertising. This choice has contributed to the nurturing of complementarities among Geox’s activities, and has led to further growth and cash flows.

This positive feedback loop explains Geox’s sustained outstanding performance in terms of growth and profitability and is consistent with the recent acquisitions of the complementarity based theory of the firm\textsuperscript{10} (Milgrom and Roberts, 1990, 1995; Milgrom Qian and Roberts, 1991; Topkis, 1995, 1998; Lindbeck and Snower, 2003; Carlaw, 2004).

\textsuperscript{10} Milgrom, Qian and Roberts (1991, p. 87) formulate the Momentum Theorem which argues that complementarities among a group of activities and processes can account for the emergence of a persistent pattern of growth even without any of the usual assumptions in the growth literature about economies of scale. Later, Milgrom and Roberts (1995, p. 187) assert that “many of the popular growth models based on returns to scale can be fit into the [complementarity] framework, because returns to scale in those models is equivalent to complementarity of choices at different points in time”. Similarly, Carlaw (2004) maintains that increasing returns to scale are not caused by
7.3. Other complementarities

Geox conceived of the shoe sole as a “technology platform”, common to diverse shoe styles and types, and therefore created incentives to configure its operations and supply chain differently from its competitors. Thus, product innovation and supply chain configuration complement and reinforce each other, thus generating increasing returns to scale.

Geox’s unique product technology led to a manufacturing process that is largely conducted in-house (though not in Italy), almost fully automated with proprietary process know-how, and concentrated in a few locations (e.g. Timisoara). The product characteristics and the need to protect the know-how from imitation complements the supply chain decisions to achieve a large fraction of target production volumes through: a) a large, fully owned plant in Romania (Timisoara); and b) a long term, comprehensive alliance with a Chinese footwear giant (Aokang).

Global outsourcing, as conventionally conceived and generally used in the footwear industry, is limited in volumes, confined to upper construction and sole bonding, and concentrated on the low end of the product range.

Similarly, the choice of targeting a large customer base complements the supply chain strategy, creating otherwise unimaginable economies of scale.

Indeed, these three choices are also complementary with the “affordable price” strategy. Lower unit production costs, related to unique product/process technologies, and large volumes, related to a wide product range and large customer base, allow the setting of affordable prices. But affordable prices favor the expansion of the market, thus reinforcing the positive effects of the other activities.

indivisibilities and decreasing returns to scale by a fixed factor. Uncertainty and complementarity lead to increasing returns in durability which leads to the decline in long-run average costs.
Conversely, Geox’s choice to adopt a “fast follower” strategy in style and design is complementary. Thanks to this choice, risky investments in design of uppers were diverted towards research and development in sole technology, materials and manufacturing processes. If Geox had not made that decision, its R&D investments would have been too fragmented and diluted to generate returns.

Furthermore, the choice to serve a wide customer base and to offer a variety of product lines and styles reinforces (in the sense that it makes more attractive and effective) the decision to set up a retail network under the Geox brand. Indeed, the transversal nature of Geox’s offer makes it possible to have single-brand stores that sell a full range of products at affordable prices to a wide section of the general public. Analogously, the choice to invest in a proprietary retail network benefits from the marketing investment, in the sense that massive advertising and communication investments make investment in Geox retail stores even more attractive.

Finally, comprehensive advertising complements the product innovation and product range strategies. Investment in communication builds customers’ awareness about the unique aspects of Geox shoes, thus reinforcing the product innovation strategy. At the same time, however, offering a wide variety of styles to a wide section of the general public increases the potential returns to investment in advertising.

For the sake of brevity, in this study we have reported only a selection of the complementarities we found during our fieldwork. We found many others in different functional areas like human resource management (with the Geox School providing technical and managerial training to young talents), the management of information technology, finance and accounting.
7.4. Substitutabilities

Also, as the theory suggests, the Geox case also provides evidence of “bad interactions”, i.e. activities/choices that work as substitutes, not as complements. Notably, this kind of interaction weakens business performance and renders the simultaneous adoption of the corresponding choices less attractive. For example, inconsistencies were evident in the IT implementation area and in the management of the indirect distribution network. We realized that even the simple misperception of interactions among choices (Siggelkow, 2002) can affect a firm’s performance or, more generally, undermine the ability of a firm to evolve successfully in the face of environmental change. From this perspective, we shared with Geox’s managers the belief that the relative costs of misperceiving the interaction effects among activities/choices can be significant and derive from various sources. For instance, an ill-designed incentive system may lead decision makers to neglect or undervalue externalities they impose on other decision makers in the firm. Similarly, managers often can not fully assess the consequent effects on other functions of such choices as moving production around the world, and tend to make such decisions on the basis of misperceptions.

8. Implications

In many mature industries there is a somewhat general, though tacit, conviction that strategic innovation is an impossible mission. After studying the Geox case, we came to believe that different and profitable strategic positions can be identified and explored, even in these mature industries.

The general implication is that, within a given industry, firms need not race towards one “ideal” configuration of optimal activity choices. Instead, they have to pursue the creation of difference as the strategy which can lead to competitive advantage.
Unfortunately, new and unique strategic positions are neither known a priori nor readily available to choose. And, as the Geox story illustrates, finding them requires creativity, tenacity, risk taking and resources to invest.

Of course the success of Geox is grounded in product innovation, but our analysis shows that its competitive advantage does not stem from this single activity. Geox did not achieve a sustainable advantage simply because it devised an innovative product (“the shoe that breathes”) or because of its timely investment in Romania (reducing production costs). Operational excellence in single activities is important, but generates advantages which usually are visible targets of imitation and do not allow sustained market-leading performance.

Instead, sustainable advantages rely on internally consistent configurations of activities. These "complementarities" occur when performing one activity has not only a direct effect on performance, but it also positively impacts performance indirectly, creating larger benefits through interaction with other interdependent activities.

When companies integrate a wide set of activities within the business it is difficult to identify the source of this advantage, as it is often rooted more in the relationships among the activities than in the activities themselves. Rivals find it hard to match the whole system because the relationships among complementary variables are opaque (causal ambiguity) and intangible (social complexity and embeddedness). And, until they are able to reverse engineer and achieve the whole system, they don't generate the returns.

This advantage seems to be evident in the Geox case. Many have tried to mimic its strategy, copying the sole-shoe technology or proposing other unique features, but no firm has been able to match its results. Only the Chinese footwear giants have done as well as Geox or even better, but they compete on a completely different basis.
As predicted by economic theory, complementarities among activities also help understand increasing return to scale, firm size and business growth even without the standard assumptions about economies of scale (Lindbeck and Snower, 2003; Carlaw, 2004). Geox’s fast growth can be interpreted as the result of self-reinforcing, positive feedback effects between its positive performance and its configuration of complementary activities (Milgrom, Qian and Roberts, 1991).

From this standpoint, the Geox case also provides interesting insights in terms of business growth management. Until now, Geox’s managers have concentrated on deepening a strategic position rather than broadening and compromising it. They have focused their efforts in making the company's activities more distinctive, in strengthening “fit”, and in better communicating the strategy to customers. In terms of international markets, the firm has adopted a consistent approach to growth. Instead of broadening domestically (despite the recent launch of an apparel division), they have expanded globally, leveraging and reinforcing the company’s unique position and identity.

In conclusion, we believe our study has explained why and how Geox is on a peak of the industry performance landscape. But what about the future? Can it keep on growing? And what if environmental conditions change?

It is difficult to tell for how long Geox will enjoy its advantage, how big it will become and how profitable it will manage to remain. Undoubtedly, market saturation is a big risk, as well as the emergence of new technologies (especially materials) and the rise of the Chinese as original design and brand manufacturers and retailers.

From a research perspective, the future developments of the Geox case represent an ideal terrain for the further testing of theories of organizational fit in the face of environmental change (Siggelkow, 2001, 2002a). On the one hand, the existence of a configuration of complementary
activities should allow Geox managers to optimally adjust all the choices (because of complementarities, the marginal benefit of adjusting each choice in response to environmental change is increased), and should make the firm more sensitive to external changes (the detection of which is more immediate, since, because of complementarities, they impact on multiple activities). On the other hand, codependent organizations like Geox are difficult to transform not only because environmental change questions the value of the organization’s assets, but also because the task of changing simultaneously a large number of choices/activities can be too complex.

As organizations like Geox mature, become more complex, sophisticated and hierarchically articulated, managers find it more difficult to identify and make choices that are consistent and complementary, because of misperceptions, discretion, coordination costs and deviation of local incentives from global incentives. As a result, it is possible that companies like Geox either move away from performance peaks (even unintentionally) or do not evolve in the face of environmental change, rather choosing to rest at sticking points that are suboptimal. Strategies based on an excess of internal fit are potentially risky in face of uncertainty and turbulence. Therefore, managers have to have alternative options and continue exploring alternative sets of configurations (Siggelkow and Rivkin, 2002).

In conclusion, while this case study provides an illustrative example of how to look for a distinctive way to compete in a mature industry, we would like to highlight how Geox, though being an Italian firm, operating in an industry where the national heritage is very strong, has moved far away from the Italian stereotypes. This is good news, for a country which desperately needs innovation, at all levels.
References


Lindbeck, A., Snower, D.J., (2003), The firm as a pool of factor complementarities, IZA Discussion Paper, No.882


TABLE 1
Geox’s key financials

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<tbody>
<tr>
<td>Turnover (million €)</td>
<td>340,1</td>
<td>254,1</td>
<td>180,3</td>
<td>147,6</td>
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<tr>
<td>Growth</td>
<td>34%</td>
<td>41%</td>
<td>22%</td>
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<td>EBIT (million €)</td>
<td>72,6</td>
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<td>Exports (% turnover)</td>
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<td>Production (million pairs of shoes)</td>
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<td>4,7</td>
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<td>Geox stores</td>
<td>278</td>
<td>200</td>
<td>130</td>
<td>68</td>
<td>32</td>
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</tbody>
</table>

Source: Corporate Reports
FIGURE 1
Annual % revenue growth for selected footwear manufacturers

Source: Authors’ elaboration on Hoover’s On Line data and Corporate Reports
FIGURE 2
EBIT % for selected footwear manufacturers

Source: Authors’ elaboration on Hoover’s On Line data and Corporate Reports
FIGURE 3
Performance landscapes

Source: Adapted from Caldart and Ricart, 2004: 98
FIGURE 4

The footwear industry: strategic positionings in the performance landscape