

Surviving regulation: how European energy industries are adapting to new rules

Killian McCarthy

Killian McCarthy is Associate Professor at the University of Groningen, Groningen, The Netherlands.

The climate is changing, and, in an effort to control the changes, 195 countries agreed, in Paris in 2015, to reduce global greenhouse gas emissions. Because the energy industry is responsible for more than 30 per cent of all the greenhouse gas emissions, it has been singled out as the low-hanging fruit by regulators looking to meet their climate change goals.

The German *Energiewende* (Energy Transition) is perhaps the most ambitious example of the type of regulatory challenge facing the industry. The *Energiewende* is a €1tn project aimed at making the German energy industry sustainable. It offers renewable energy producers preferential treatment, a fixed feed-in, commits the Government to reducing greenhouse gases by 80-95 per cent by 2050; and it commits the Government to closing all of Germany's nuclear reactors by 2022. The effects of *Energiewende* on the German energy industry have been profound, but the effects on the German energy incumbents have been nothing short of catastrophic. E.ON and RWE, two stock-listed German energy firms, have had their market values drop by 70 per cent between 2007 and 2014.

What are the strategic options available to the German energy incumbents, and indeed to all energy incumbents that will be subjected to similar regulatory interventions? In this paper, using insights from 12 core strategy theories, and 50 years of strategy research, we consider four potential survival strategies.

Strategy 1: fight

Is fighting a viable strategy? The research on non-market strategy suggests no.

To understand why, we must start with Porter (1980), who explained that industry attractiveness is determined by “five forces,” that is, the level of rivalry, the threat of entrants and substitutes and the level of buyer or supplier power. Strategy, according to Porter, is about positioning the firm against a particular industry's five forces.

Oster (1994) added government to this model as a “sixth force,” arguing that government actions affect the competitive advantage of firms and industries. Baron (1995) explains, however, that there are important differences between “market” actors – like competitors – and “non-market” actors – like governments. To begin with, the firm can “choose” to interact with the market, but it has to interact with the non-market. To build a complete competitive position, therefore, Baron suggests that the firm must develop both a market strategy, which positions the firm against Porter's five forces, and a non-market strategy, which positions the firm against its regulatory environment.

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“Because Nissan moved to the proactive position first, it created a technological head start for itself and was able to shape the legislation to fit its needs.”

Hillman and Hitt (1999) propose three ways in which the firm can influence its regulatory environment: an “information strategy” uses, for example, lobbyists, to give policymakers the “right” information; a “financial incentives” strategy builds political capital by, for example, making political contributions; and a “constituency building” strategy creates awareness among interested groups – such as activists or the media – in an attempt to increase the firms’ political influence or pressure on regulators.

There is ample evidence to suggest that firms engage in non-market strategies. Holburn and Vanden Bergh (2014) show that acquiring firms in the utilities industry increase their contributions to political parties the year before announcing controversial acquisitions. There is also ample evidence that these strategies work. Stratmann (1991) shows how in 1985, a contribution of \$3,000 to the US Congress led to the survival of a sugar subsidy worth \$465m annually.

There are, however, many different non-market objectives. Oliver and Holzinger (2008) differentiate between the “defensive,” “value maintaining,” strategies used by tobacco firms, aimed at preserving the firm’s position in the market, and “proactive,” “value creating” strategies, aimed at creating new assets or competencies and new market positions. In the latter case, Bach and Allen (2010) describe how Toyota used a non-market strategy to ensure that its low-emissions hybrid Prius model would be granted access to the state’s carpool lanes, even with single-occupancy, and in so doing created a real competitive advantage for its product with a minimal investment.

Which is the better strategy? The anecdotal evidence is that value maintaining strategies cannot be used in the face of changing social preferences. The tobacco industry spends hundreds of millions annually on “massive lobbying and misinformation campaigns” (Palazzo and Richter, 2005), but the result has only been to delay the inevitable, and the industry today is more regulated than ever before. In the face of changing social preferences, Wesseling *et al.* (2015) suggest that a “value creating” strategy may be more useful. They study the way in which the four major car manufacturers responded to the zero-emissions legislation in USA in the 1990s and showed that while initially all the four manufacturers adopted defensive strategies to oppose the legislation, all four moved to proactive positions over time. They also showed that because Nissan moved to the proactive position first, it created a technological head start for itself and was able to shape the legislation to fit its needs.

What are the lessons we can draw from this discussion? First, all energy incumbents should have a non-market strategy. Second, “value maintaining” non-market strategies are only useful in delaying regulations that reflect changing social preferences. Finally, firms that work with the change and adopt an active position will perform better in the long run. Fighting the change, therefore, is not a viable strategic option.

Strategy 2: flight

Is exiting the market a viable option? Or leaving the country or the industry? The “theory of competitive advantage” suggests that neither is a serious option.

“Competitive advantage” is, effectively, an advantage that allows the firm to produce the same for less or to charge higher margins than its competitors. Porter (1980) suggests that

competitive advantage comes from the way the firm positions itself against the five forces, but resource-based scholars like [Barney \(1986\)](#) and [Wernerfelt \(1984\)](#) suggest that competitive advantage comes from the way firms bundle resources.

Resources can be tangible or intangible. De Beers, for example, built its competitive advantage on a tangible resource, controlling 90 per cent of the world's diamond mines in 1902, while Coca-Cola built its competitive advantage on an intangible resource, in that two-thirds of its value is derived from its brand name. Capabilities can also be resources that create competitive advantages. Capabilities, effectively, are what the firm can do with the resources that it owns ([Amit and Schoemaker, 1993](#)). Amazon, for example, has a competitive advantage in its distribution capabilities, while Google's competitive advantage lies in its capabilities to attract human resources.

Two streams of literature are necessary to translate this idea of competitive advantages to the case of energy incumbents looking to exit their market.

The first, the literature on organizational behavior, warns that industry exit is rarely a value-creating strategy. This suggests that whether firms create value with their strategic choices, à la Porter, or with the value-adding resources and capabilities that they bundle, according to resource-based scholars, firms shape themselves to the needs of their industry. Consequently, firms that diversify into another industry never quite fit. Just because Coca-Cola is good at cola does not mean that it will be good at cars or computers. Coca-Cola is successful because it made strategic decisions and bundled the resources and capabilities necessary to create value in the beverages industry. By diversifying out of beverages, it would damage the value of these strategic decisions and resource bundles. Of course, there are many cases of successful diversifications, but the evidence is that firms that diversify, perform worse than those that stay in their own markets.

The second stream of literature, on international business, warns that country exit is also difficult. Again, whether firms create value with their strategic choices or with the value-adding resources and capabilities that they bundle, the firms shape themselves and optimize their operations for the needs of their home country. Firms that enter into new markets incur what is known as the "liability of foreignness" ([Hymer, 1976](#)), a set of costs "based on a particular company's unfamiliarity with and lack of roots in a local environment" ([Zaheer, 1995](#)). They often face difficulties in creating value in the new markets because many competitive advantages are "location bound" ([Verbeke, 2009](#)) and lose value when transferred to other markets. Walmart, for example, failed in Germany, and lost more than \$1bn in the process, because its competitive advantages, and its reputation as a friendly discount store, was location-bound. Again, of course, there are exceptions to the rule. On average, however, research shows that firms that expand across borders perform worse than those that stay at home.

Together, this research warns that market exit will be an expensive exercise for energy incumbents, reducing the value of their current assets and requiring them to invest in new assets. Flight, therefore, is not a viable long-term survival strategy.

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Strategy 3: follow

What about the option of moving from carbon to renewables and following the markets' changing needs? Again, the research suggests that such a strategy is unlikely to succeed.

The literature on innovation suggests that whether firms create value with their strategic choices or with the value-adding resources and capabilities that they bundle, they shape themselves to the needs of their market. The market, however, is not stationary (Schumpeter, 1942), and as market needs change, so does the value of the firm's competitive advantage. For example, Blockbuster built its competitive advantage in the off-line era by investing in real estate, and in the off-line era, its 9,000 video rental stores and 60,000 employees (2004) provided an insurmountable competitive advantage. As the technology changed, however, so did the consumer preferences. Netflix entered the market in 2007, and by 2016, it served customers in 190 countries and enjoyed revenues of \$6.7bn, while Blockbuster, saddled with huge volumes and unproductive real estate, had collapsed to 51 franchise stores in one country. As market needs changed, the same resource, which once protected Blockbuster from the competition, eventually became a millstone around its neck.

This process, known as Schumpeter's "gale," or the process of "creative destruction," which means that as markets' evolve, the value of the firms' competitive advantages changes. Quiet periods dominated by one type of firm, end with "shocks" or "discontinuities" that destroy the old firm and the old market and create new firms and new markets. This logic has been used to explain why giants like Nokia and Blackberry lost out to Apple, a new entrant, and why Apple is, itself, destined to be overtaken in the future.

Why did Blockbuster lose the battle? Two arguments have been put forward. The "sunk cost" argument maintains that it is more difficult for an incumbent firm to switch to a new technology, given its prior investments, than it is for an entrant to invest in a new technology. The "replacement effort" argument suggests that, assuming equal innovation capabilities, the incumbent has far less to gain by disrupting a market that it is dominating with innovation than an entrant. Together, therefore, this literature suggests that Blockbuster lost the race because Blockbuster shaped itself to meet the needs of its market, incurred costs in the process and then, as the market changed, underinvested in the innovation necessary to reshape itself to the new market.

The literature on first-mover advantages (Lieberman and Montgomery, 1988) also raises questions regarding the follow strategy and can explain the case of Blockbuster. First-mover advantages are those gained by the "first-moving" firm to occupy a specific market segment and can be used to block competition. First-mover advantages arise from three sources. "Technological leadership" is a first-mover advantage that comes from being the first to master a technology. Xerox was famous for not only patenting in its own technological domain but also patenting in a number of complementary domains, to prevent substitutes emerging. Next, "preemption of assets" is a first-mover advantage that comes from acquiring the necessary competitive assets first. Pepsi and Coke preempted future new entrants to the soda business by preemptively buying up shelf space in stores. Finally, "switching costs" are a first-mover advantage that makes it more expensive for later entrants to attract consumers. Switching costs lock in consumers and mean that Microsoft

Office can, at \$1,000 a subscription, remain dominant in a market in which most of the competitors' software is free.

The innovation literature implies that energy incumbents will tend to over-allocate resources to their existing businesses because of their perceived sunk costs, at the neglect of the paradigm-shifting innovation needed to survive. The suggestion from the first-mover literature is that by the time they notice what they should be doing, the entrants will have captured all the first-mover advantages. Following the market, therefore, seems to be an unwise strategy.

Strategy 4: fit

What are the options? By fighting, the incumbents risk looking like the tobacco industry; by fleeing, the incumbents risk destroying massive value; and by following, the incumbents risk becoming the new Blockbuster or Nokia. Fifty years of research suggests that, when presented with a change, the incumbents should accept the trends and look to their "core competencies" to redefine their position to fit within the new market.

The "core competency" concept was introduced by Prahalad and Hamel in 1990. They observed that many of the leading North American and European firms of the 1970s lost the battle when pitted against their Japanese rivals in the mid- to late-1980s. In explaining why, they noted that while Western firms tended to conceive themselves as "a portfolio of businesses" – that is, they were built around "core businesses" – Japanese firms tended to conceive of themselves as "a portfolio of competencies" – that is, they were built around skills. Xerox conceived of itself as a photocopy company, while Canon conceived of itself as a specialist in optics. This seemingly moot distinction meant that when the car market stalled, Chrysler, the "car company," ran into problems, but Honda, the engine company, grew by 200 per cent by creating new markets for its engines.

[Prahalad and Hamel \(1990\)](#) use the tree as a metaphor to understanding a core competency: the trunk and the major limbs, they suggest, are the core products; the smaller branches are the business units; and the leaves, flowers and fruit are the end products. The strength of the tree, they explain, is not in the flowers, as Western firms seemed to suggest, but in the roots that provides stability, sustenance and nourishment.

The core competency perspective is helpful when guiding the firm in its strategic decision-making processes, and is especially helpful when dealing with change. And here, Wilkinson Sword is perhaps the gold standard. Wilkinson Sword was founded in 1772 as a musket-maker, and in the 1820s, it added bayonets as complementary products to its portfolio. During the First World War, Wilkinson Sword was contracted to produce two million bayonets, but in the Second World War, it was only asked to produce 10,000. Its managers realized bayonets were not the future, and they looked for new growth markets, but instead of fighting, or fleeing, or following, they adopted a "core competency" perspective of what it is that it did. Wilkinson Sword defined itself as a producer of blades, instead of a producer of bayonets, and it began producing shaving blades. In doing so, when its core business collapsed, Wilkinson Sword was able to redeploy its "core competency" and in 2001, when Wilkinson Sword was acquired, it was the world's number two in the razor market, and enjoyed sales of \$620m.

We conclude that energy incumbents should change the way they view themselves. By not viewing itself as a "car maker" but as an "engine maker," Honda freed itself to move beyond cars, while Wilkinson Sword, by not viewing itself as a "sword maker" but as a "blade maker," freed itself to explore beyond swords. Energy incumbents, by exploring what it is that they do at the most fundamental level, could redefine themselves and discover new ways to create value. The question, of course, is do the energy incumbents have the managerial vision to reimagine what it is that they do? or Will they instead choose the easy, but misguided options, of fighting, fleeing and following?

Keywords:

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Corresponding author

Killian McCarthy can be contacted at: k.j.mccarthy@rug.nl

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