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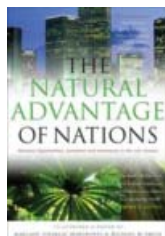
"It was a pivotal event for all HOK attendees... we were immersed in a sea of information, strategies, science and insight. We left with a strong commitment for a far wider discovery and education of these ideas across the firm."

**HOK President Bill Valentine on a workshop with environmental pioneers Janine Benyus and Paul Hawken**

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## The Natural Advantage of Nations (Vol. I): Business Opportunities, Innovation and Governance in the 21st Century



*This book is about innovation, solutions, competitiveness and profitability. It is also about building environmental integrity and sustainability now and for future generations. It draws a bold vision for the future and tells us how to get there by building on the lessons of competitive advantage theory and the latest in sustainability, economics, innovation, business and governance theory and practice. The authors incorporate innovative technical, structural and social advances, and explore the role that governance can play in both leading and underpinning business and communities in the shift towards a sustainable future. The result is nothing less than the most authoritative and comprehensive guide to building the new ecologically sustainable economy. ([more...](#))*

### Chapter 1 (Part 3) - Creating competitive advantage of the firm

There has been a significant change in understanding, over the past three decades of what creates lasting competitiveness of the firm. Professor Michael Porter showed, in *The Competitive Advantage of Nations*, that globalization, the shortening timeframe of technical innovation and the rise of the multinational corporation mean that the ability to innovate processes in advance of one's competitors is the key to increasing productivity gains and competitive advantage today. Porter writes: 'competitiveness is not merely greater efficiency based on working harder or even working smarter. It is not merely doing things better but doing better things. It requires firms with the know-how to capture greater value in the market place not just by being more efficient at what they do, but also in choosing where to compete.'

The new paradigm of international competitiveness is a dynamic one, based on innovation. Competitiveness at the industry level arises from superior productivity; either in terms of lower costs than rivals or the ability to offer products with superior value<sup>[27]</sup> (value adding)<sup>[28]</sup> that justifies a premium price. Detailed case studies of hundreds of industries, based in dozens of countries, reveal that internationally competitive companies are not those with the cheapest inputs or the largest scale, but those with the capacity to improve and innovate continually. Competitive advantage, then, rests not on static efficiency or on optimizing within fixed constraints, but on the capacity for innovation and improvement that shift the constraints.'

Traditionally, nations have sought to assist their firms to achieve competitive advantage on the basis that you need to reduce labour and resource costs, run a lower exchange rate and so on. Countries that, for instance, had abundant and cheap natural resources were seen to have a 'natural advantage' over those nations that did not. However, as Porter demonstrated in *The Competitive Advantage of Nations*, there are firms that have succeeded in achieving international competitive advantage whilst doing the exact opposite of these standard assumptions.

**Table 1.2** *Traditional assumptions of what creates competitiveness are not always true*

<b>Cheap and abundant labour</b>	Germany, Switzerland and Scandinavian countries have done well for decades with high wages and shortages of labour.
<b>Interest rates, government deficits, and exchange rates</b>	There are many nations that have enjoyed rising living standards with budget deficits (Korea, Italy and Japan), appreciating currencies (Germany and Switzerland), and high interest rates (Italy and Korea) over the last 30 years.
<b>Possessing abundant, cheap raw resources</b>	From the 1970s to the 1990s, resource poor nations like Singapore, Japan, Korea, Switzerland and Germany prospered. Singapore achieved a rise in per capita GDP, in the 15 years from 1980 to 1995, that resource rich US needed 50 years to accomplish.
<b>Labour-management relations</b>	It is not easy to generalize here, as unions are very strong, for instance, in Germany and Sweden with representation by law in management (Germany) and on boards of directors (Sweden). Both nations over the last 30 years have prospered, contradicting the view that strong unions will lead to loss of competitiveness.

Source: Adapted from Porter (1990)

Increasingly then, companies that are most competitive, achieving the greatest productivity gains, are not those with access to the lowest cost inputs. Rather, they are those firms which constantly innovate to become the best in the world. A study undertaken by Collins and Porras<sup>[29]</sup> compared the stock price of visionary companies, especially those companies with a socially conscious vision, with their major competitors. What they found was staggering: visionary companies were up to 15 times more profitable than the market average, even though the bottom line was not their major concern. Such companies, which include 3M, Boeing and General Electric, all outperformed their major competitors in stock price, often by a factor of ten or more.

Because technology is constantly changing, the new paradigm of global competitiveness requires the ability to innovate rapidly for new emerging markets. This is evidenced by the fact that the most competitive companies are those that employ the most advanced technology and methods in using their inputs. A major study by McKinsey & Co of over 1000 companies in 15 sectors over 36 years, found that innovating to become the best in new emerging markets was a key element of success.<sup>[30]</sup> Companies simply sticking to 'business as usual' automatically under-performed.

For example, faced with the threat of the Personal Computer, IBM continued to insist on picturing tomorrow as an extrapolation of today and assumed the demand for the PC would not be great enough to warrant a change in strategy. In doing so, the companies missed market opportunities worth an estimated US\$70 billion.<sup>[31]</sup> The McKinsey & Co report added: 'As capital markets become less forgiving of long-term under-performance, so corporate life-spans shrink. The average life of companies on the Standard & Poor's index fell from over 65 years in the 1920s and 1930s to around ten years by 1998. Too often, corporations are slowed down by their fears about cannibalizing their own markets, potential customer channel conflicts, or the dilution of earnings. Markets, by contrast, have "no lingering memories or remorse", creating more surprise, more innovation'.<sup>[32]</sup>

The fastest growing new emerging markets are increasingly in the area of sustainable solutions. In addition, Porter and van der Linde<sup>[33]</sup> demonstrated that firms can achieve further competitive advantage through greater resource productivity, the eco-design of products (reducing process costs) and the production of 'clean and green' goods and services (product differentiation).

**Table 1.3** Benefits of eco-efficiencies, whole system design and industrial ecology to a company's competitive advantage

Process benefits	Product benefits
<ul style="list-style-type: none"> <li>• Material savings from better whole system design.</li> <li>• Increases in process yields and less downtime through designing out waste and designing the plant and process to minimize maintenance and parts.</li> <li>• Better design to ensure that by-products and waste can be converted into valuable forms.</li> <li>• Greater resource productivity of inputs, energy, water and raw materials to reduce costs.</li> <li>• Reduced material storage and handling costs through 'just in time' management.</li> <li>• Improved occupational health and safety.</li> <li>• Improvements in the quality of product or service.</li> </ul>	<ul style="list-style-type: none"> <li>• Higher quality, more consistent products.</li> <li>• Lower product costs (for instance, from material substitution, new improved plant efficiencies).</li> <li>• Lower packaging costs.</li> <li>• More efficient resource use by-products.</li> <li>• Safer products.</li> <li>• Lower net costs of product disposal to customers.</li> <li>• Higher product resale and scrap value.</li> <li>• Products that meet new consumer demands for environmental benefits.</li> </ul>

Source: Adapted from Porter and van der Linde (1995a)

A broader shift is starting to occur. There are many examples of unilateral initiatives that have helped firms differentiate their products and gain market share based on environmental attributes of their products and processes. For example, BP has exploited its marketing and technology management capabilities, developed through the fossil fuel businesses, to build a market leading position in renewable energy technologies, particularly solar cells. BP's differentiation has been heightened by: (i) the decisions by all the other major American energy companies except Amoco to divest their alternative energy businesses, and (ii) the decision by many of the oil companies to play a visible role in resisting the adoption of effective climate change policies. Similarly, two carpet companies, Interface, Inc<sup>[34]</sup> and Collins and Aikman<sup>[35]</sup> have chosen to differentiate their products by investing in materials that can be almost completely recycled into new carpets. Ford Motor Company has developed a commanding lead over its domestic competitors in the design and manufacturing of low emission vehicles selling nearly 95 per cent of all such vehicles in the US.<sup>[36]</sup>

These are not isolated case studies, nor do they apply only to billion-dollar companies. As we will show, actual experiences reported in many studies and reports have consistently shown that eco-efficiencies, eco-innovation and cleaner production provide numerous ways to improve the triple bottom line, and thereby begin the journey to genuine sustainable development. Section 2 will present the emerging consensus of how firms can achieve sustainable competitive advantage.

Next Part 

The development of this book and its online companion was made possible through access to research, peer review and funding from over 20 organisations, companies and government departments, together with the mentoring from over 75 experts and leaders in the field. TNEP is very grateful for this support and proud to welcome you to the Online Companion for *The Natural Advantage of Nations*.



**Foundation Partners in the research, development and review of the book.**

## References

27. Swiss watches command top dollar around the world. The aluminium in each watch costs approximately 30 cents. Clearly, Swiss watch companies have identified and targeted being world competitive in the most profitable part of the supply chain. ([Back](#))

28. It is widely recognized that it is in a nation's economic interests to add value (Value Adding) to its raw and natural resources before they are exported to command premium price for the export of these resources. Refer to the report of the MMSD Australia project, 'Facing the Future' (Sheehy, B. and Dickie, P. (2002)

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