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From the Bottom Up: Lessons for Canada on How Global Companies Compete

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How do companies successfully compete globally? Are Canadian business strategies and public policies the right ones for future Canadian company success globally? To answer these questions and understand how Canada's companies fare globally, policymakers have traditionally relied on official data on trade and investment. But as companies increasingly reposition different parts of their supply chains in different places, making goods or delivering services using inputs from all over the world, such data are insufficient to inform critical business and policy decisions.

The best way to get better information on the strategies companies are actually using, how they fit into global supply chains, and how they are faring in the global economy, is to ask them. A group of Massachusetts Institute of Technology (MIT) economists and engineers did that, interviewing 500 leading American, Asian and European companies several times each from 2000-2005.[1]

This briefing paper examines the lessons of most relevance to Canada from the MIT interviews of how companies responded to global competition and opportunities. It provides a point of reference for future Conference Board of Canada research that will examine the experience of Canadian companies, using a similar bottom-up analysis of how Canadian companies respond to global developments. That analysis will also draw on other similar research in progress, such as Industry Canada's work on global supply chains in telecommunications equipment, autos and other sectors.

We use the term supply chain here to refer to the sum of functions required to bring a good or service to market. This is a broad definition that includes research, design, production, marketing and distribution.

[1] Berger, How we compete.

MIT's Approach

The MIT Industrial Performance Center's team of engineers and economists focused on a few sectors in which underlying technologies change rapidly (electronics and software) and on a few others where basic technologies change more slowly (autos, textile and apparel). They interviewed managers at 199 electronics companies, 84 autos and auto parts companies, and 170 textile and apparel companies, over 2000-2005. All are under intense pressure from competitors globally, and appear to be competing successfully (though of course those that are successful today are not guaranteed to succeed in the future).

At first glance, this study appears to focus exclusively on goods, but the focus on supply chain functions means it implicitly examines the service functions that underpin all global supply chains for both goods and services.

Key Findings

The following points distilled from the extensive MIT findings observations are likely to be of most interest to Canadian decision-makers.

<u>Finding #1: Successful companies now can and do build innovative and highly valued businesses at any point along the supply chain</u>. The ability to break down business functions and carry out different activities in different places means that companies do not have to be able to do it all. They can specialize in those functions they do best, and successfully build a business at virtually any point in a supply chain. In this context, the core strengths of innovative companies are not the products themselves, but rather their capabilities.

<u>Finding #2: Newer, smaller companies can compete successfully in global markets.</u> One implication of that ability to specialize in a particular function is that it opens access at every stage of a global supply chain for both established companies and also for start-ups or smaller companies. It is a lot easier to start up or expand a smaller company when it can focus in a particular area, rather than needing to build a comprehensive service provider, for example. A component manufacturer, a design company or brand with no manufacturing, or a manufacturer with no brand, can all be viable. For example, SMaL is a new digital camera firm developed by MIT engineers who bought chips from Taiwan and technical design from Hong Kong, then sold these "kits" to brand-name companies that assembled the cameras in China.[2] The observation that companies do not need to be large, established and provide comprehensive services to succeed globally is of particular relevance to Canada with its relatively fewer large multinationals and high share of smaller businesses.

<u>Finding #3: At each function along the supply chain, competition has increased.</u> The ability to innovate and create a viable business at every point along the supply chain means that competition at each stage is intense.

[2] Berger, How we compete, p.253.

Finding #4: Successful companies constantly evaluate what to focus on and what to buy or make elsewhere. Activity by activity, process by process, companies that innovated and were successful constantly reevaluated their decisions about what to do at their head-office location, what to contract out, and what to locate elsewhere.

Finding # 5: There is no single most successful model of what supply chain functions to carry out where. Companies' constant evaluation of what to locate where did not result in a uniform set of rules for success, even within the same industry, as Table 1 shows.

Intel, for example, makes its chips in-house, while HP and Texas instruments buy them from Taiwanese semi-conductor foundries. The U.S. company Dell excels in design, distribution and logistics, and contracts out to companies outside of the U.S. everything except 4.5 minutes of final assembly. By contrast, Japan's Sony makes half of its Vaios in its own factories in Japan, and has a much broader range of businesses, including components, consumer electronics, music, movies and games. All are world-class electronics companies.

Successful American clothing companies such as Gap and Liz Claiborne produce everything in China, Mexico or other low-wage countries, while Italy's Benetton, Spain's Zara and the U.S.' American Apparel successfully make most of their clothing at home with high-wage workers. Zara, for example, had extraordinary growth over 2000-2005. Most of what it makes and buys comes from a particular region in Spain, and this proximity to developed country markets in Europe enables it to get goods to market quickly. Zara is known as the "king of speed" because of its ability to move garments from design onto store racks quickly, with new items every two weeks.

The finding that successful companies have different responses to global competition runs counter to the common argument that globalization forces uniformity.

Table 1. Selected business strategies that appear successful

Strategy	Key advantages	Examples (Country of headquarters in brackets)	Alternative strategy	Key advantages	Examples (Country of headquarters in brackets)
Buy or make most inputs in low-wage countries	May lower costs and allow developed economies to focus on high-end functions	Gap (U.S.) Liz Claiborne (U.S.)	Buy or make most inputs in developed world	Can allow development of highly skilled workers, allow more control	Benetton (Italy) Zara (Spain) American Apparel (U.S.) Luxottica (Italy)
Specialize and buy most inputs	Can cut costs, increase efficiency, enable building a company at any point of supply chain	Intel (U.S.) – specializes in components Dell (U.S.) – specializes in logistics and distribution	Have highly integrated, comprehensive operations	Can increase speediness to market, reduce intellectual property risk	Toshiba (Japan) Sony (Japan) Panasonic (Japan) Samsung (Japan)

Source: Conference Board of Canada based on information in Berger, How we Compete.

Finding #6: U.S. and Japanese approaches are notably different but both appear successful. US electronics companies tend to specialize in one part of the supply chain. They either focus on making components (Intel) or products (Dell, Apple). The Japanese tend to do both, and keep significant manufacturing, R&D, design and distribution in Japan. Toshiba, for example, views its integrated production as a competitive advantage to producing new products.[3] U.S. companies tend to produce in China either to lower production costs for exports, or to make goods to be sold in the Chinese high-end market. Japanese companies do everything from design to component production and sales in China, competing head-to-head against Chinese domestic businesses in low-end, high-volume products.[4]

Finding #7: Low-wage competition in particular sectors does not necessarily mean companies in those sectors can not compete by locating in high-wage countries. Companies in some countries have maintained employment in the developed world, despite heavy competition from low-wage producers in developing countries. Italy has high wages in its clothing sector relative to the US or UK, and yet has seen a much smaller employment decline in that sector than have other European countries and the U.S. Though most eyeglasses are made throughout Asia, companies like Luxottica, a highly successful Italian eyeglass manufacturer (better known through the Lenscrafter name in Canada), make their glasses in Italy due to higher productivity, better quality, and appropriately skilled workers. As well, all garment production in the developed world is unlikely to move to China due to the need for fast delivery and replenishments that command premiums in developed economies.

Finding #8: Moving production to low-wage countries is not always cheap. Luxottica calculated that the labour cost advantage of moving eyeglass production to China is negligible. Companies need more supervisors in China than in Italy; sending workers from Italy to China costs three times as much as employing them in Italy; the rate of

[3] Berger, How we Compete, p.159
[4] Berger, How we Compete, p.226.

defective pieces is higher in China; and downtime is longer in China since qualified technicians are not easily available. The company has also closed former Ray-Ban factories on the U.S.-Mexican border, and shipped the production equipment to Italy where they calculated that the quality and productivity are much higher.[5] Further, to get good people, companies need to pay above-average wages, since job-hopping is common in rapidly growing developing economies.

Instead of focusing on the prospect of cheap wages in developing countries, other factors should be given higher priority. For example, labour costs per unit of output are more important, as is the prospect of greater market access, or access to technology or specialized skills. Other key factors are political and intellectual property risks. Both Japanese and American companies, for example, view Taiwanese electronics manufacturing and design companies as very efficient but also "intellectual property risks"[6], since sharing information with them could potentially create a competitor.

<u>Finding #9: One company tends to control all supply chain activities even if it does not own all of the activities.</u> One company in a supply chain network determines how the production chain will be divided up and what role each partner will play. Size brings such leverage, which is a concern for Canada given that this country is dominated by smaller companies. As another analysis[7] indicates, large retailers such as Walmart – rather than producers – now drive supply chains, of concern because of Canada's short list of such leading retailers. That analysis suggests that "Canada will be downgraded within the world business community to participation mostly in the subsidiary producer supply chains that link in to the supply chains of giant, mostly U.S.-based retailers."[8] If correct, this can have negative consequences for Canada's living standards.

Conclusions for Canadian Leaders

Canadian leaders should not simply copy the successful business strategies profiled in the MIT study. Rather, that analysis suggests that governments should nurture and enhance distinct Canadian capabilities. They should focus on openness, innovation throughout all points of supply chains, and education. Also key to advancing better-informed policy decisions is a better understanding of where Canada fits into these global networks. Given the importance of one dominant company in supply chains, this includes assessing to what degree Canadian businesses have control in global and regional supply chains. It also includes understanding whether smaller Canadian companies are taking advantage of the ability to insert themselves into global networks by becoming the best in niche areas. The Conference Board of Canada's International Trade and Investment Centre will address these themes in future research.

The lesson for Canadian business leaders is that, though there is no one-size-fits-all approach to competing successfully in the current global economy, companies that develop unique capabilities can build highly valued businesses at any point along the supply chain. Those unique capabilities can help secure strong bargaining power within

[5] p.162.
[6] p.158-9.
[7] Nakamura, Retail supply chains.
[8] Nakamura, Retail supply chains.

global supply chains that tend to be dominated by one powerful company. As well, global supply chains are dynamic and leaders must constantly reevaluate their decisions about which business functions to carry out where. Location considerations such as proximity to market, political or intellectual property risk, and access to particular skills and technologies may play a more important role than do straight wage rates for companies' abilities to compete successfully.

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