



“Does Globalization Force One Best Model? Results from the MIT Globalization Study”

Suzanne Berger
Discussant: Philippe Riès

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Professor Suzanne Berger is a Professor of Political Science at the Massachusetts Institute of Technology where she is also a member of the Industrial Performance Centre and the Director of the MIT International Science and Technology Initiative (MISTI). She has just published *How We Compete*, a book on corporate strategies based on a research project carried out over six years by thirteen researchers from various disciplines and involving discussions with over five hundred companies around the world. The principal finding is that, whether the industry is “fast-tech,” an industry seeing rapid technological change, or “slow-tech,” i.e. one where technological change is not revolutionising production methods, companies in different countries can find ways to capitalise on historic cultural and organisational strengths specific to their firms or the societies in which they are based and successfully adapt to globalisation’s competitive pressures. There is no single path to success.

Technology rules?

Opening her presentation **Professor Berger** said the object of the study was to analyse the impact of globalisation on the prospects for innovation, economic growth, social wellbeing and political stability in different societies.

Globalisation is tending to create a single world market for wages and capital structures and the price of goods and services, she said. What we wanted to examine in our research, Professor Berger added, was whether it was also pushing firms towards a convergence of business models. What we discovered is that as well as a fragmentation of corporate structures, there is also a “legacy model,” of corporate strategy, notably in Japan and Germany, in which companies have remained more vertically integrated, partly to take advantage of national institutional structures, the existence of a highly skilled workforce for example, but also to profit from competitive advantages derived from the history of the firm. So a key finding is that, against the expectations of some of our researchers, particularly the engineers, there is no single corporate model for success.

Certainly around the world there are fundamental structural changes taking place in corporate strategies and structures. By the end of the 1980’s, it seemed that corporate activity would have to converge on a highly vertically integrated model in which core functions from research through development, design, production and marketing were all tightly integrated and managed within the firm. The firm tended, for example, to locate

core activities close to lead customers to promote “just in time” supply chains and mutual learning.

Today, however, the model, especially in the US, has changed. There has been a massive fragmentation of production systems and a redistribution of activities between home societies and host societies. The search for cheap land and labour and market access is a factor behind this. But it has been enabled by advances in information technology, “digitisation,” and driven in part by the benefits of specialisation.

The degree of fragmentation varies widely from country to country, market to market, firm to firm.

US companies in general have adopted the most fragmented corporate structure. Dell Computer is an example of a firm which has embraced a high level of fragmentation. It is an assembly house. Its suppliers own their disc drives or memory components until they enter a Dell assembly facility. Within three and a half hours, the only time during which Dell actually owns the hardware, a desk top computer for example, will emerge from the factory, owned by the individual who has purchased it.

But Sony, in contrast, is still successfully producing high value VAIO laptop computers in factories in Japan. And Samsung Industries, after recovering from a “near death experience” still sources most of its components from its own factories in China and from Korea.

The Apple iPod is another example of fragmentation. The components in it are not the result of an expensive research programme in Apple. They are off-the-shelf components. Apple’s specialist skill was to see how to combine them into a new, immensely successful product.

So production functions have become modular. Companies can be specialists in design or component production or product assembly. This modularity permits more rapid entry into, and therefore more competition within, specific segments. It helps to explain, for example, how a company such as internet switching equipment supplier Cisco systems, was able to grow so quickly to world leadership.

Even “slow-tech” companies, ones in which the basic production technology is mutating slowly, are also fragmenting and specialising. Textile firms are an example. Some textile firms, Gap of the US and Hennes and Mauritz (H&M) of Sweden for example, make no clothing themselves, production is outsourced. Zara, by contrast, still makes half its clothing in northern Spain, even though wage levels for production workers are several times higher than they would be in China for example. Zara’s business model requires it to react within days to customer’s demands, expanding or cutting back production of specific products. Information technology quickly provides the knowledge to do this. In house production permits rapid response.

But because competition is intensifying, fear of competition is rising too and affecting attitudes to outsourcing. Japanese companies were burned by their outsourcing

experiences in the 1990's which allowed Korean and Taiwanese firms to access their technologies. Now many Japanese firms are careful only to outsource technology which is invisible. American firms, in contrast, seem to take the view that intellectual property life-cycles are short and therefore they are less inclined to hide technology.

Professor Berger than raised what she sees as two key questions arising from the US approach. If you outsource to China, rather than follow the Japanese approach of owning plants in China, will you gain the detailed knowledge of the Chinese market which will allow you to successfully develop market share in the Chinese market itself?

Secondly, in the more fully fragmented model, will your decision to spin-off parts of the corporate structure and diminish in house capabilities be damaging in the longer run.

For example, sometimes innovation takes place in what at the time are peripheral corporate activities. If these are no longer in house will you recognise their significance. STMicroelectronics, for example, is deliberately holding on to some of its manufacturing activities because it understands that it does not know from where the next technological lead forward will emerge, she said.

The Discussant, **Philippe Riès**, currently bureau chief for Agence France Presse in Brussels and formerly head of AFP's Tokyo office, responded by saying that the MIT research underlined that there is no single recipe for corporate success in a globalising world. Technological frontiers are blurred. "Slow-tech" and "medium-tech" companies can be very sophisticated in the materials they use, cars have become computers on wheels. Toyota still seems to be immune to the business cycle and L'Oréal able to deliver operational results and market share gains year by year. So routes to success are not only driven by technology.

After reading the book, he said, he wished there had been more detail about how governments and societies help firms to compete globally. He detected several models. An American shareholder value driven, short term focused model which may court long term handicaps. A Japanese model which remains heavily influenced by social responsibility and in which stakeholders are more important than shareholders, and so outsourcing is constrained by the need to avoid destroying jobs.

The US model has resulted in manufacturing only accounting for 11-14% of GDP. Will it have to change again? Will the US have to re-industrialise as part of the inevitable rebalancing of the global economy? And how do you protect your most important asset, the "know how" within your company, not just technological know how which can be "black boxed" and hidden, but the knowledge embedded in your work force.

Suzanne Berger said that she thought that as far as rebalancing is concerned, increased services sector exports presented the US with the its best overseas earnings prospects. As for protecting know-how, this is difficult because codifiable knowledge is easily transferable. Efforts to control "tacit knowledge," for example by making it more difficult

for foreign students from India and China to study and work in the US, something the Bush Administration did after September 11, are damaging. But, she added, some links in the chain of a corporate structure are more powerful than others, marketing for example. How do companies retain their strengths at key points is an important strategic question.

One participant wondered how important an influence national institutional structures really are. What is the significance of the fact that cheap labour is not a winning strategy in countries like Germany and France? Another asked whether the propensity to outsource is correlated with the size of firm?

Suzanne Berger responded that successful companies would capitalise on institutions at home but compensate for domestic institutional weaknesses. Germany's weakness in venture capital, for example, meant that its pharmaceutical firms would be inclined to try to build up say, bio-technology capacities, in Cambridge Massachusetts, not Germany. Even the search for cheap labour is a complex story. Companies do not outsource to politically unstable and undeveloped places like Somalia or Haiti where the rule of law is weak and infrastructure poor. It is exceptional to have a region such as South China with low labour costs but adequate economic infrastructure.

Jean Pisani-Ferry suggested that there seemed to be three explanations for the varied responses to global pressures. Diversity can be a reaction to competitive pressure and the search for corporate survival, a reaction to differing national environments such as labour laws and costs and a response to differing corporate ownership, governance and capital structures.

Suzanne Berger responded that national institutional characteristics are very important. In Japan for example, production of certain products which require highly skilled workers and fast changing product cycles, the next generation of cell phones is not outsourced because you do not have in China the skilled workers, including managers, to accomplish quick changes.

In response to another intervention she suggested too that, as far as innovation is concerned, national institutional settings, such as the willingness of society to let a company such as Digital Equipment Corporation (DEC) die and so spur its top engineers to move on, some of DEC's engineers helped to create Sun Microsystems, can be decisive.

But, she added, this national institutional setting in the US may be threatened by fear of globalisation. The US is a society in which, if you lose your job at General Motors or Ford, you also lose your health care and pension benefits as well as your wages. So it may be hard, she argued, to maintain public tolerance for America's flexible economic system if there is no safety net. In Western Europe, she added, perhaps politicians should be more courageous in accepting flexibility since the state provides the social safety net to cushion workers.

But, given that innovation is vital in order to maintain a competitive edge, what, **Suzanne Berger** was asked by a participant, explains Europe's weakness in this field?

Professor Berger responded that she too found this puzzling. In a district like the southern outskirts of Paris, you have fine universities and technical researchers but few start ups, whereas around MIT, in a state with high taxes and high wages, old, out of date factory buildings are being occupied by innovative young firms.