



Managing New Industry Creation: Global Knowledge Formation and Entrepreneurship in High Technology

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Like much great science, the research on which this book is based began with a premise that turned out to be false, but which in the course of investigation uncovered something much more interesting and useful. The authors had focused initially on accumulation of physical plant and equipment as a predictor of industry location. After around a decade of observing the emergence of the Flat Panel Display (FDP) industry, and over 160 formal interviews with managers and scientists (150 of who are named in the book), the authors come to a clear, three-part conclusion. Successful knowledge-driven competition in the global economy requires continuity, learning, and speed.

The authors' frame their work as a contribution to the question of how businesses can develop core competencies. I would go further, and argue that what they have done is to document the emergence of what Leonard Wrigley, over 3 decades ago, termed "core skills", a collective ability to marry the potential in technology with potential in a market. What is particularly fascinating about this book is how it tracks how opportunities to develop core skills were seized by some and rejected by others.

In the light of current arguments on short-termism of public stock markets and its effect on management decisions, it is interesting that the authors found that the companies that moved the industry beyond prototype development towards full production "set aside negative recommendations based on financial models because they envisioned displays as keys to future markets that could not be quantified". This is active industry evolution – creating the future, not just reacting to what is. It is where human will and vision comes in. The author's conclusions for the management of multinationals are challenging: given new industries can arise anywhere, multinationals must free up their affiliates to take initiative to become part of new industries as they emerge. Their research also questions conventional wisdom that one must choose either cost leadership or differentiation, and that trying to do both will achieve neither. Not true, according to the authors, if one is competing in a fast evolving industry. You need to do both, quickly.

One further lesson I take from this book is that as the world becomes more integrated, the knowledge streams that create new industries shift and dissipate, and it is therefore simply beyond the ability of any government – American, Japanese, or any other, to control new industry location issues. Murtha and his coauthors show how, as the FDP industry evolved, its epicentre shifted several times as bold bets were taken by corporations entering the FDP knowledge stream on the role they would play in it. Attempts by governments to influence the location of activity and the creation of core skills had unintended and negative consequences. These passages remind one of the classic case study "How great expectations in Washington are dashed in Oakland" by Pressman and Wildavsky (1973).

The book should be required reading for policymakers as they strive to implement "the knowledge-driven economy", and is a powerful riposte to protectionist voices both in the US and the EU. In one sense, it is reminiscent of Bruce Scott's (1973) answer to Kenneth Galbraith's thesis of the 1960's that the great corporations of the world were holding the rest of us to ransom. Through careful field research, Scott and his colleagues showed that corporations

just didn't act like Galbraith assumed they did. Murtha and his colleagues have similarly shown that Japanese and US governments have little or no power to bend the evolution of an emerging global industry to their will. (As Soichi Nagamatsu, the MITI official responsible for tracking the industry told the authors: "If you can figure out how to do it, please let me know" [p.35]).

This book will hold particular resonance for scholars of industry evolution, international business, corporate entrepreneurship, strategic alliances, and 'public choice' policy research. It may hold some surprises for industrial economists and scholars of strategic planning, particularly those from the 'IO' school. I enjoyed the memorable insights of industry actors captured by the authors in the area of corporate entrepreneurship, such as "You can't raise mice in the elephant's cage". The authors derive important and useful – and testable – arguments from these insights. An example is their statement that "product divisions focused on current issues were looking for immediate bottom line contributions, not costly associations with research projects."

Having recommended this book as a welcome and scholarly addition to our knowledge of new industry creation, I do have a few quibbles, mostly in relation to editing. Many of the figures and tables are poorly labelled or are missing titles, and some are overly complex and confusing. The authors (or editors?) have, it would appear, tried to lighten the book through the use of tabloid newspaper-style headings. In my view, section headings like "back to the future" (p172) or "Talkin' Bout My G-G-G-Generation" (p.122) distract more than they inform. The structure of some chapters could be improved. Typically, several conceptual lessons are grouped together, followed by long passages of historical reconstruction. These latter are intended to supply examples of generalities that might hold true for all new industries. The problem with this is that the unfolding history is so interesting in itself that it is all too easy to lose the important lessons the authors have so painstakingly drawn in the first half in the detective story that is the second half. For example, on government bureaucracy (p.166/167), I feel a bureaucrat reading this would not be convinced by their argument, as it lacks concrete examples. Perhaps some strategically placed boxed examples would have been a more suitable format for these sections.

We need more long term, in-depth, real-time historical studies like this one. Scholars from many fields will be able to use it, both in the development of theory and in teaching. Managers and policymakers will find many practical lessons. It is a book that repays repeated reading.

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