is not dealt with in this book. Nevertheless it does provide us with guidelines for improving the balance between work, family and social life.

Brian Burrows

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

Thomas Murtha, Stefanie Lenway and Jeffrey Hart, Stanford University Press (2001), 269 pages, £24.99

The bursting of the dot-com bubble and the economic retreat seen in various high technology sectors may make this book seem out-of-date. But to see this highly readable volume in this way would be a mistake, for it contains an interesting account of technological development as well as drawing important lessons for management.

The book examines the development of the flat-panel (FPD) industry from its infancy through to emergence as an important associated technology for the computer industry. The authors researched their subject for several years and the fruits of this are manifest in the extensive and well-judged use of interview material to illustrate their argument, as well as useful technical briefings on the technologies examined.

The argument can be understood in two distinct, yet overlapping ways. First, it is a story about national systems of innovation, or more precisely why the flat-panel display industry cannot be understood within this framework. "The FPD industry is an example of a new class of industry that cannot be understood in terms of country rivalry or national competitive advantage." (p.2) The book clearly situates itself in the competitiveness discourse that continues (though with less prominence) to inform policy debates in developed states. The political economy literature, building on strategic trade scholarship of the 1980s, became interested in the role of government in catalyzing important technological change for the benefit of domestic firms. Glenn Fong's work on the important role of the American government in the creation of computer industry is an illustrative example. FPDs attracted interest because of their dual-use application: screens that could be used on the laptop storing this review could also be used in military aircraft in place of bulky video screens. This explained US government interest in cultivating an American FPD industry for the sake of security of supply. Murtha, Lenway and Hart show why this effort failed: industries featuring rapid technological change do not require a national programme based on proprietary technologies (a "them and us" approach to commercialization), but strategies that emphasize engagement with foreign firms to tap technology, consortia to overcome technical hurdles and an openness to learning and, the rapid translation of that learning into firm-level practices. Firms that succeeded would go to where the best technologies and practices were (mainly Japan) and understood the need to be reliable and active partners in the technology generation process.

Second, the volume can be understood as a story about disruptive technological change. Here the book builds on the extensive work on the interaction of technology and corporate strategy by scholars such as David Mowery and David Teece. The early chapters trace the evolution of the key technologies underpinning flat panel development and show how early pioneers fought to make their designs viable in the marketplace. It is also seen how firms reacted differently to the promise of flat panel technology. Some firms, whilst appreciating the display's potential, could never devise appropriate corporate strategies to take advantage. AT&T is perhaps the best example of this, though as the authors note, the company was also in the throes of a major restructuring at the very time that key FPD technologies were being developed. In line with other work on

technological development, the authors show how FPDs threatened existing lines of business and competencies of firms such as IBM, thus presenting management with difficult choices. Important internal battles were fought to keep R&D budgets alive, with FPD units needing to fight their corner against competing technologies and corporate goals.

The book is written with two audiences in mind: academic and practitioner. The former will appreciate the depth of research seen here. The authors draw extensively on the important works in strategic management, political economy and evolutionary economics to contextualize their work. This is mated to an impressive use of primary research including company documents. The result is a good piece of scholarship that will add to anyone's stock of knowledge in these areas. Practitioners will appreciate the story that is told. The technology is important, but the people standing behind it are intelligent and interesting figures in their own right. The authors set out to distil lessons for managers, especially those working in technology-intensive sectors.

Some readers will not be convinced by the suggestion that only new industries can be understood in terms of international technological interdependence. Much of the talk of national rivalry in the political economy literature seems overstated: aerospace and pharmaceutical firms, for example, have long used knowledge developed elsewhere.

Overall, this is an excellent, readable and authoritative examination of an important industry. Lecturers wanting a good resource on new product development and national technology policies should find a place for it on reading lists. Executives looking for lessons about the relationship of R&D to other corporate functions will also benefit.

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Leadership for 21st Century Learning: Global Perspectives from Educational Innovators

Edited by Colin Latchem and Donald Hanna, Kogan Page (2001), 269pp., £22.99

It is widely accepted that the education and training sectors have to change and develop their markets, their delivery systems and the way that they manage themselves, in order to remain competitive as they progress into the 21st century. In particular, alternative methods of providing students with access to learning, such as open and flexible learning, are being focused upon as the necessary future for education. However, there are considerable barriers to such changes for a variety of reasons including entrenched cultures, lack of innovation, structural barriers and a lack of awareness of the particular difficulties inherent in the solutions themselves.

It is recognition of these issues that led to this book. According to Colin Latchem and Donald Hanna, their aim was to address these problems and to "give the reader some insights into what we have come to see as the major issues in open and flexible learning, the need for forward looking transformational leadership that is concerned with change, innovation and entrepreneurship" (p. xvi). The book opens with chapters by the editors outlining both the context and the problem, discussing the barriers to change and some of the potential solutions. There then follows a series of interviews with individuals identified as being experienced leaders in open learning. The purpose of these interviews is to enable the reader to learn from the experiences and insights of individuals working in a variety of organizational settings.

When reading the book I found the topics discussed, such as the developing of an entrepreneurial culture within education and the need for transformational leadership if open learning is to be possible, extremely interesting. I also found the observations within the interviews beneficial in raising awareness of the problems and solutions that had been faced by others. However, I was rather disappointed at the end as there was a lack of application of the ideas for readers trying