



Book review

Managing Industrial Knowledge; Creation, Transfer and Utilization

BY I NONAKA AND D TEECE (EDS)

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The book consists of papers collected from interdisciplinary forums held at Berkeley. Reviewers become justifiably cynical about multi-author threadless volumes churned out of worthy research meetings, so it is a pleasure to report that this book discusses a topic of immediate interest. Since it is impossible to review every chapter, provided here are some themes with specific examples. Robert M Grant discusses knowledge and organisation. Firms are changing rapidly—through outsourcing and partnerships, through team-structure instead of the ubiquitous hierarchy, and not least through knowledge rather than positional power. Grant argues that hierarchy is effective for different reasons, and quotes some of Herbert Simon's arguments in favour of hierarchy, namely loose coupling of modular units and adaptability. Grant weakens his case somewhat by using as his example of modular product design and teamwork Microsoft's development of Internet Explorer (a web browser), contrasting its success with Netscape's admittedly 'spaghetti code' Navigator which proved hard to upgrade, so it lost its market. However, this was far from the simple race to market that Grant suggests; the battle was won by dubious means (leading to a major lawsuit) in which Microsoft provided its browser free, and together with (though not necessarily linked to) its Windows operating system. When Grant says 'A key feature of team-based organisations is a much lower dependence on authority relationships than in more traditional structures', non-academic readers will probably roll their eyes and mutter 'well, fancy that' as they think of Anita Roddick's The Body Shop and its iconoclastic management style.

A theme that runs strongly through many of the chapters is tacit knowledge, and it is good to see that Michael Polanyi is discussed in some depth as a result. However, it remains a mystery as to why Wittgenstein, a key figure with regard to both tacit and verbal knowledge, is left out of the discussion altogether. Claus Otto Scharmer, for instance, writes about types of knowledge in *Organising Around Emerging Realities*. I imagine he guarantees to lose any industrial readership he may have had when he quotes Nietzsche and Heidegger, which is a pity as he has much of interest to say. We can all recognise Scharmer's different 'logics of languaging' (no matter how painful the phrase may seem) in 'Talking nice', 'Talking tough', 'Reflective dialogue', and 'Generative dialogue', and Scharmer rightly acknowledges Donald Schön's 'reflection in action'. There is doubtless a lot of good stuff in Scharmer's classification; but equally, describing twelve types of knowledge, four levels of corporate action, three epistemologies, a triadic spiral of knowledge creation, three types of learning infrastructure, four field logics of languaging and five domains does seem rather heavy for a single chapter. The closest some authors seem to come to industrial practice is to theorise about it. For example, John Seely Brown and Paul Duguid discuss the philosopher Gilbert Ryle: 'Knowing how' is learned by practising, by doing things. Inevitably, such knowledge is therefore often

dismissed as 'mere' practical knowledge, on the assumption that it is inferior to the theoretical kind. Doing seems less cerebral than thinking.' The authors are not wrong, exactly, but this is highly condescending to practical people who actually do things, and it is not the only example in the book. Charlan Jeanne Nemeth and Lauren Nemeth write amusingly, and far more practically, on managing knowledge workers. They discuss carefully what it means to be 'creative', why playfulness is useful, the role of social status in influencing decisions, and the value of diversity. They conclude with some simple lessons for management.

Charles Leadbeater also seems to be a theorist well grounded in reality. He writes about how knowledge should be owned, a thorny issue now that the human genome has been decoded, and biopiracy (he does not mention Vandana Shiva) in the form of patents on life in many forms is rampant. Some predictable industrial notes are sounded. Xerox (in a chapter by Kazue Kikawada and Dan Holtshouse) argue not unpersuasively that almost half the knowledge is held 'scattered about in organisations in the form of paper and electronic documents. This should be available for sharing but isn't ...' and go on to state that 'Our conviction is deepening that document management is an essential, if not core, element of knowledge management.' Which is convenient if you sell document management tools. Similarly, when authors Kulkki and Kosonen, presumably Nokia employees, conclude that the 'Nokia case illustrates the exceptionally rapid growth of a globally innovative company', the reader is entitled to take the message with a pinch of salt, even when agreeing that it is better to take tacit and explicit knowledge into account, rather than relying on simplistic models of firms such as transaction-cost or game theories. Incidentally, the book fails to provide any details of the authors beyond their names: not even their affiliations are given. It would be helpful to readers to have short biographies to set the chapters in context. Better handled is indexing, with a single well thought out index combining names and topics—though it is far from complete: for instance, Herbert Simon's books and papers are referenced numerous times, but he gets just one index entry. However, there is no central glossary or bibliography, both of which would have been helpful.

This book is written at the level of business rather than of software or systems, and is thus probably too general for most people on projects. Some of the writing is distinctly academic in tone, with pages of sociological references at the end of such chapters; in contrast, the Xerox chapter has none, and Haruo Naito (president of family firm Eisai, 7300 employees, according to the author) gives just one reference. Perhaps it would have been better to organise the book clearly into theoretical and industrial sections, or to have restricted authors to discuss specific topics in a maximum of 10 pages; Reason and Bradbury's *Handbook of Action Research* (2000), reviewed in a recent volume of *EJIS*, is an example of this wise approach. This book provides a provocative set of contrasting views on industrial knowledge. This is not unsurprising, as it is not likely that academics and industrialists will agree on how to run a shop any time soon. Both business people and researchers in management schools will find many things in it to interest them.

Ian Alexander
Independent Consultant, London