## **BOOK REVIEWS**

Stimulating Innovation by Tudor Rickards
(Frances Pinter Ltd. London 1985) pp. vi + 221 6

(Frances Pinter, Ltd., London, 1985) pp. xi + 221, €15.00 ISBN 0-86187-512-5.

This is a thought-provoking book and the fact that all the thoughts it provokes may not be exactly those the author intended, does not detract at all from its value. In developing his 'systemic' view of innovation, primarily for managers rather than for intellectuals, Tudor Rickards has combed the whole range of modern management thinking for aspects which relate to the innovatory process. He begins with the basic concepts of innovation and admirably summarises the ideas of the best-known thinkers in the field. Then comes a chapter on creativity, the subject which is closest to his own heart, and on which he has previously written so well. This is followed by two chapters which discuss the contributions which management theory could make, both in terms of organisation and psychological and social insights. Organisational change and related topics get a chapter to themselves, and the book ends with reflections on models for action and a 14-point check-list of the most important ideas concerning innovation that have emerged from the study.

In order to illustrate and enliven the theory, the author introduces a fictitious company (Schlurps) whose management is trying to become innovative, and the account of their discussions at the end of each chapter as they try to absorb the ideas and put them to work, is both amusing and helpful.

The systemic view of innovation is here set up against what may be termed the 'heroic' view. It is in a real sense, an attempt to develop thinking that will obtain innovation from bureaucracies. But what if the real problem is bureaucracy itself, not just in public organisations and large firms, but even in small businesses? To the extent that the latter depend upon public interventions — grants, 'soft' loans and the like — those who run them will inevitably become like their uncreative patrons. The dominant impression at the end of the book was that Schlurps management would never successfully innovate, in spite of all their study, because they didn't have enough 'spark' between them — especially at the top, where it is indispensable. They were basically uncreative people, and they found themselves in their jobs — and remained in them — because competition, especially from new businesses, founded by new men on the basis of new ideas, has become so seriously tempered under modern economic conditions.

Also, if we are going to invoke systems thinking, how can we stop at the level of the firm? A firm exists within an economic system, and whether it can be innovative or not depends not just upon itself, but even more upon whether that wider environment is congenial to innovation. This point is obscured by using examples such as the Apollo program to show the effectiveness of systems thinking. In this case the whole question of the relationship of NASA to its wider environment had been settled once President and Congress had decided that whatever resources were necessary to put a man on the moon within a prescribed period were to be provided. Nothing could be further away

from this than the position of an individual firm in a competitive environment, in terms of extracting resources for investment at high risk in innovation, out of that environment. Consider a situation where the management of Schlurps was composed of the most creative individuals imaginable, and they had also absorbed everything that Rickards could teach them about systems thinking. The firm could still not be innovative, even in the least degree, if the economic environment in which it was operating did not provide some means whereby Schlurps could appropriate the results of its investment in generating new information.

Stimulating innovation, therefore, is more a question of getting the wider environment right — especially in terms of a Patent system that works properly — than it is of getting systems thinking adopted within firms. If our institutional structures no longer work so as to put resources behind the most creative individuals, and tend to reward 'fast seconds' more than innovators, we cannot expect the kind and volume of innovation that is needed. Come to think of it, the lack of 'spark' in the Schlurps management, noted above, may in fact have been no more than their correct preception that the firm's environment was simply not such as to make creative effort on their part worth while. They recognised how far pioneering doesn't pay.

There is a great need for books that can make academic research and thinking available in a form that is useful for those who have to make ideas actually work in practice. Tudor Rickards has come up with one that does this admirably within the limits of the systems perspective he has set for himself. Any firm which buys books at all should certainly add 'Stimulating Innovation' to its library.

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Computer Related Technologies in the Metal Trades Industry. A Report to the Prime Minister by the Australian Science and Technology Council (ASTEC) prepared by the Technological Change Committee (Australian Government Publishing Service, Canberra, January 1985).

There is no doubt that manufacturing industry in Australia has performed unsatisfactorily in economic terms. During the last ten years, over 180,000 jobs have been lost in this sector and its competitive viability has been increasingly called into question. At the same time the advanced industrialised countries in Europe and North America have been developing competitive industries based in part, on best available technology; and the newly industrialised countries, including some of Australia's close neighbours, have experienced dramatic economic growth partly based on their manufacturing performance.

The challenge confronting Australia is to develop a viable manufacturing sector that can compete effectively against imports, and in world markets more generally. Reliance on the export of primary products is no longer adequate. Agricultural markets are less open to Australia than they once were,