Book Review

Jingjing Huo
How Nations Innovate
Oxford, UK: Oxford University Press, 2015

Reviewed by Ronald Hikel

This work is, by turns, intensely frustrating and remarkably absorbing. Frustrating because it is not reader-friendly. Theoretical sections are often abstruse, to the point of obscuring the author's meaning. Paragraphs run on, then circle back upon themselves. It could have done with a good, stiff edit, so is not an easy read. But it is also absorbing. The model, once unscrambled, is important and in places original.

Analysis centers on a long and complex chain of factors said to be shaping two very distinct patterns of technological innovation among business firms in the capitalist world. Innovation is said to have four domains: finance, products, labour markets, and volatilities in the innovation process. These arise within two variants of capitalism, whose resulting and quite different patterns of innovation yield sharply diverse but equally important economic and especially societal consequences.

In short, innovation modes are having substantial and divergent effects on their surrounding societies. And these distinct outcomes are very much in today's news.

The two economic system variants are labelled:

1. Strategically Co-ordinated Capitalisms (SCC); and
2. Liberal Market Economies (LMC).

The former are quintessentially the Nordic nations and much of the rest of Europe (excluding the south) and Japan; while the latter are Anglo-Saxon countries.

Factors apparently driving creation of this causal chain are educational phenomena. In the LMC countries workers are being overeducated, as compared with the more effectively targeted industry-specific skills of the strategically coordinated economies. Briefly, what lies behind these patterns are the presence (in Nordic Europe) and the comparative absence (in Anglo-Saxon states) of powerful institutions, including the state, able to create inter-firm coordination.

The main independent variable here is innovation output. The state plays a central role in creating what Professor Hou labels the causal mechanism creating this result: institutions having

the capacity to coordinate elements of the economy, such as training, education and finance. He observes that: "Where political and public support for state funding is strong (again, Nordic countries), the state used … social investment policies to increase service sector employment, not at the low end, but at the knowledge-intensive high end characterized by discretionary learning." Anglo-Saxon countries trail behind, in the number of their workers in discretionary-learning jobs. These countries, however, do well in creating employment, but only so long as the quality of the resulting jobs is ignored.

On the other hand, because Anglo-Saxon economies have a larger percentage of overeducated workers, "more workers will be matched to job postings that on average require less academic education than they have attained … relative to the routine aspects of their jobs." But, in the author's view, this has a significant and sustained result: more radical and less incremental innovation taking place than in the SCC economies. This occurs in part because "more workers with advanced knowledge are produced, but also because such knowledge is diffused across a broader range of occupations that are important for successful radical innovation."

Huo further argues that, because of these conflicting educational patterns, SCC economies concentrate more on innovating new production processes for established products, while the LMC countries focus more on inventing new products. And the consequences of these different emphases are extensive and socially quite profound.

This difference has advantages for Europeans. "Compared with process innovation, product innovation has much weaker impact in raising productivity on the shop floor … by specializing in product innovation, Anglo-Saxon economies appear to have the "wrong kind" of innovation for the purposes of productivity improvement." This could explain why it has long been recognized in comparative political economy literature that "Anglo-Saxon workers lag behind their European/Japanese counterparts in productivity".

This reality, if correct, does not seem to be universally accepted in the United States. Observers there may be focused on Apple's recently reported $18 billion quarterly profit or its recent market valuation of $765 billion. Huo's book may provide at least a modest counterpoint to Apple's place as the world's most admired brand and quintessential technology innovator.

There are several other important social consequences of SCC and LMC forms of innovation. First among these is the differential impact on worker income inequality. This in turn has implications for the functionality and effectiveness of the welfare state, which he also describes.

The author focuses on two relationships here: first that between the very top and median worker incomes and second that between average incomes and the very bottom. He finds that innovation in SCC states narrows the top/median wage divide, but increases the middle/bottom

divide. On the other hand, in LCC economies, innovation widens the top/median wage gulf but narrows median/bottom differentials. There, the distance between the top and the middle widens, as they move closer to the bottom. This gives the middle and bottom a greater sense of mutual interest.

Some readers may find it difficult to associate technological innovation with increasing income inequality. On the other hand, this work might seem to be confirmed by recent reports on growing US income differentials possibly increasing support of voters in the middle incomes for income transfers, while dampening it in Europe.

What could US employers do to achieve greater process productivity? Huo recommends less hierarchical, more autonomous and trusting work places, with more local discretion. He describes a "high-control/low performance Anglo-Saxon regime, and a low-control/high – performance European (and especially Nordic) regime." Here, as in several other places, a reader's frustration may arise. How is it possible for US firms to be world leaders in radical innovation while lagging behind in work place accommodation to the needs of worker productivity? It could be a matter of different practices in different regions, economic sectors or size of firm. Possibly off-shore manufacturing plays a role.

Several other occasions for discontent come to mind. Early chapters are theoretical to the point of being recondite, without much structure or sign posting to create a sense of progress. Having introduced the concept of a causal mechanism – all the rage in social science these days – he gives short shrift to detailed explanations of how, exactly, the multiple factors composing this configuration actually interact in practice to produce dependent outcomes. At least one or two company- or even sector-specific case studies would have been beneficial, giving further basis for confidence in his often fascinating findings. And at least a nod or two acknowledging a few of the major political barriers in the way of achieving some of his recommended remediation would also have been justified.

The bibliography is massive, running to 25 pages and about 500 publications, in a book of just over 200 pages. The index, conversely, does not quite reach two pages and is incomplete. Half the bibliography and twice the index would have made this a better book.

This is ultimately, however, a learned and often persuasive analysis of social, economic and political factors shaping and being influenced by technological innovation in the developed world. It is full of worthy insights, more than a few of which are usefully surprising. It could, therefore, be of value to academics with an interest in innovation, to public servants and government policy-makers looking for ways to facilitate greater national or regional innovation or strategies to cope with increasing economic inequality. But only if they have lots of time and patience when reading.

About the Author:

Ron Hikel is a political scientist, having applied this discipline as an academic teaching at Canadian and US universities; as a senior public servant in three Canadian provincial governments; as a management consulting partner with KPMG Canada(executive director of the KPMG Centre for Government); and as a policy and campaign advisor to US and Canadian politicians. His present research focuses on process, structural and cognitive causes of catastrophic administrative failure in the delivery of public services, in Canada, the US and Britain. A paper on this topic was recently presented to a conference of the International Political Science Association. He can be reached at rhikel101@aol.com