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Book reviews

Agile against Lean: An Inquiry into the Production System of Hyundai Motor, by Hyung Je Jo, Jun Ho Jeong and Chulsik Kim. Singapore, Palgrave Macmillan, 2023, xii + 267 pp. ISBN 9789819920419 (hardback); ISBN 9789819920426 (ebook).

In the first two decades of the 2000s, Hyundai Motor (HM)[1] became a shooting star in the automobile industry. The company quickly grew to become the world's third-largest carmaker, behind Toyota and Volkswagen.

This book analyses the factors that contributed to this successful development. Its title, *Agile against Lean*, harks back to the debate about production systems initiated in the early 1990s by James Womack and colleagues, who declared the lean production system exemplified by the Toyota production system (TPS) to be the best system for the future.[2] This claim was contradicted by researchers and industry players alike. In the United States, as Hyung Je Jo, Jun Ho Jeong and Chulsik Kim describe, an industry-led consortium developed an alternative model centred on agile production; they argued that, building on American strengths, this would better meet the challenges that industry would face in the future. Characteristic features of this model were flexible cooperative arrangements within and between companies, diffused authority structures and a skilled workforce that could be flexibly deployed to allow companies to rapidly respond to changes in external conditions.

Although HM, like almost all the Western car makers, introduced lean production practices during the 1990s, after the Asian financial crisis the company took measures that, according to Jo, Jeong and Kim, led to a new kind of agile production system. This system, which they regard as the driving force of the company's successful development, differs fundamentally from the American agile system concept. The basic characteristic of the HM production system, according to the authors, is its combination of the contradictory elements of authoritarianism and experimentalism.

This review begins by looking at the element of authoritarianism. This element is rooted in the system of family-led chaebols in the Republic of Korea. Chaebol leaders usually have substantial discretionary power, which enables them to mobilize resources and reconfigure organizational structures quickly and without having to compromise with other stakeholders. The system was hit hard by the Asian financial crises, but the remaining chaebols, such as HM, were revitalized through modernization and reform. On

[1] Formally known as the Hyundai Motor Group, HM was formed after the takeover of Kia.
[2] James P. Womack, Daniel T. Jones and Daniel Roos, *The Machine that Changed the World* (New York: Rawson, 1990).

This book review is also available in French, in *Revue internationale du Travail* 164 (3), and Spanish, in *Revista Internacional del Trabajo* 144 (3).

HM's production system, the book emphasizes two areas of change: supplier relations and the role of labour.

Modularization played an important role as a starting point for restructuring supplier relations in such a way as to strengthen the dominance of the chaebol leader. A new subsidiary, Hyundai Mobis, was founded to supply modules and coordinate the lower tiers of internal and external suppliers in the value chains. This was accompanied by a hierarchical tiering of the supplier structure following the Japanese keiretsu model. While these measures reinforced the authoritarian decision-making structure, they also prompted the development of a business ecosystem and of "horizontally cooperative inter-firm pragmatic capabilities" (p. 45). This gave rise to experimentalism, the second main element of the HM system (see below).

In labour relations, however, the chaebol leadership's discretionary power seems quite limited. After democratization in 1987, blue-collar workers successfully fought to become unionized; since then, the union has blocked many decisions affecting shop-floor labour. Originally, the company aimed to develop Japanese-style labour relations, including a system of skills development and active shop-floor participation. Owing to the adversarial hostile labour relations, a TPS-type system was no longer an option for the company (pp. 36–37).

Consequently, the book explains, the company developed a production system that did not require blue-collar workers' commitment and cooperation. Workers were *not* to be assigned responsibility for quality and were *not* to be involved in continuous improvement activities; jobs were simplified and previous skills-training programmes were abandoned. The role of workers was just to perform work as they were instructed to do. Thus, Jo, Jeong and Kim regard the authoritarianism in the HM system as a matter not of leadership style but of labour relations policy and Taylorist segmentation.

The book does not discuss the question of why workers accept such a role and do not demand more fulfilling jobs, opportunities for skill upgrading and personal development. The regular workers protected by the union are described as reasonably satisfied with the situation because they enjoy guaranteed employment security and because their work has been simplified by automation and the assignment of undesirable jobs to irregular workers who have no such protection. The book likewise says little about the views of the labour union. The authors seem to suggest that the union is content with the situation of "hostile coexistence" (p. 108), which allows the union to control the shop floor. The book would have benefited from further elaboration of these issues.

The book's strength lies in its analysis of the inner logic of how the system is functioning. Two factors played a decisive role in this functioning. First, labour was substituted by technology, automation being boosted to the highest possible level; and second, tasks like monitoring and maintaining equipment, quality assurance and process improvement were assigned to college-educated engineers. The authors speak of an "automation-centered technocratic solution that excludes shop-floor labor" (p. 45).

Previous governments' education and labour market policies played an important role in enabling this substitution of blue-collar workers by engineers. The investment in a strong knowledge base of engineers and scientists was viewed as a means of achieving catch-up development. The Republic of Korea has one of the world's highest levels of young people in tertiary education, especially in the STEM disciplines (science, technology, engineering and mathematics). Such college graduates have been hired primarily by large companies, displacing skilled workers from them. At HM, engineers came to be governed by a completely different labour regime than applied to blue-collar workers.

An important measure that gave rise to the second element of Hyundai's production model, experimentalism, was the setting up of a pilot centre as an organizational link between the HM Group's research and development activities and its production plants worldwide. Built in the early 2000s, the pilot centre has become a fulcrum of HM's evolving production system. By optimizing production processes and eliminating issues that might lead to problems in mass production, the pilot centre makes up for the lack of

problem-solving capabilities on the shop floor. It is described in the book as a space for non-hierarchical cooperation, a "meeting place … to discuss the development and mass production of new cars through a deliberation process" (p. 102).

The engineers enjoy relative autonomy in their work and are encouraged to improvise and experiment in finding solutions. They work in cross-functional teams and cooperate in a non-hierarchical manner with engineers from other organizational units or companies within and outside HM. The authors paint a rather idealized picture. They go as far as to call the engineers' working situation "democratic" (p. 51).

A production system that is ruled autocratically from the top, that is based on a Taylorist division of labour, that excludes blue-collar workers from continuous improvement activities and thus limits the development of their capabilities – all this stands squarely against the core principles of lean production as well as of good work. Nevertheless, the system is highly successful.

Jo, Jeong and Kim stop short of declaring the HM production system the industrial model of the future. Indeed, given the challenges HM faces with the shift of the car industry to electric vehicles and new business models, they regard Tesla as the model company. At the same time, they point to similarities of Tesla's production system to HM's in the focus on "engineer-led technocratic solutions" and the role of the CEO (p. 49). Further examples of similar approaches can be found among Chinese car makers in the field of e-vehicles. Companies such as BYD seem to share many features with the system at HM. A new breed of production systems with authoritarian-Taylorist structures seems to be on the rise.

Agile against Lean will, hopefully, prompt a revitalization of the production system debate. It makes an important contribution to understanding current changes in the automobile industry and opens a wider research agenda, yet its conclusions about the role of labour are disquieting. All in all, it is highly recommended – not just for researchers examining the auto industry and country experts, but also for a wider audience.

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