Critics of Lean

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These days, few would doubt that lean is a practitioner-led field of study. However, lean has its origins in the world of academia. Lean is most commonly seen as having emerged following the publication of *The Machine That Changed The World* (Womack et al., 1990). *The Machine* is the book that made lean a popular phenomenon. However, when the book was first published, it encountered a good deal of criticism from within the academic community. Some might argue that this polemic may have been, in part at least, a reaction to the book’s success. In this paper I provide an overview of the various lean critics so that you can begin to evaluate the validity of their views. More than twenty years on from when the book first appeared, it would seem that lean has emerged triumphant. After all, today there is still tremendous interest in lean among the practitioner community many of whom remain driven to follow the imperative set out in this original seminal text. Nevertheless, it is still valuable to have an appreciation of who criticised lean and why.

There are five main schools of Lean critics which may be categorised as follows:

1. The style and narrative devices of *The Machine* or the discourse school of Lean critics.
2. The empirical evidence contained in *The Machine* or the empiric school of Lean critics.
3. The effects of Lean on the workforce or the exploitation school of Lean critics.
4. The transfer and universal application claims of Lean or the transfer school of Lean critics.
5. The financial benefits of Lean or the financial benefits school of Lean critic.

Each school, and the main critics within that school, is addressed in turn in the paragraphs that follow:

**The Discourse School of Lean Critics**

*The Machine* followed a relatively contemporary genre of bestselling management books. In keeping with this genre, it made bold claims and assertions:

‘Our conclusion is simple: Lean production is a superior way for humans to make things........It follows that the whole world should adopt Lean production and as quickly as possible’

(Womack et al., 1990, p. 225).

Delbridge (1995) was critical of the arrogance of such claims which he dismissed as generalised simplifications based on stereotypes and western misconceptions. New (2007) took a similar view, denouncing simple schema which seek to assert bald polarities between TPS and Taylorism. Similarly, Williams *et al.*, (1992; 1994) argued that the ‘periodisation’ of craft, mass and lean, used as one of the
narrative devices in *The Machine*, was misleading. Williams *et al.* polarised the debate on Japan at the time into two basic positions: the sceptical pessimists, who argued that Japan’s success is the result of higher wages and healthcare costs in the west, and apologetic optimists, who argued that the Japanese represent more efficient productive methods that would eventually spread. They claim that *The Machine* and the International Motor Vehicle Programme (IMVP), the research study on which the book was based, were significant because they provided heavy-weight social scientific support for the apologetic optimists. Williams ridiculed *The Machine* for its gospel-like preaching of Lean production (Williams, in Stewart, 1996). Stewart (1996) also attacked the authors directly: ‘Many people’s lives are changed unrecognisably by the latest management whim, proselytised by academic consultants who knowing better should be wary of promised wonders’ (Stewart, 1996, p.16).

**The Empirics School of Lean Critics**

Some authors focused less on the style and genre of *The Machine* and more on the empirics within. Williams *et al.*, (1992) argued that the difference between Lean and mass production was not empirically sustainable and accused the authors of basing their account on standard secondary sources that are known to be deficient. Coffey (2006) also questioned the historical accuracy of *The Machine*. Williams *et al.*, (1992) argued that the ‘half the human effort’ claim exaggerated the Japanese advantage. He maintained that this claim is based on three final processes which only account for 15% of the labour in a car. He stated that *The Machine* ignored the prevailing literature which warns against the difficulties of process comparisons. He also said *The Machine* ignored the influence of market demand, not correcting for capacity utilisation and ignoring the problem of a company, which may be a bundle of plants, being the unit of analysis. Finally, he suggested that the emphasis on the company as the unit of the analysis led to the neglect of the wider social context such as economic and market conditions (Williams *et al.*, 1992). Katayama and Bennett (1996) also pointed out that the research reported in *The Machine* was conducted at the time of Japan’s ‘bubble economy’ of the late 1980s during conditions of a bullish stock market and low interest rates. Other commentators have also highlighted the importance of the Japanese economic context (Cusumano, 1994).

Coffey (2006, 2007) is also critical of the empirical data within *The Machine* partly for methodological robustness but primarily for poor interpretation of data. He suggested that the role of automation was heavily downplayed in *The Machine* and that, if due account had been taken of Europe’s weak overall results, automation would have offered far greater causal explanation. Coffey argued that the official, flawed, interpretation of the IMVP survey was disseminated via and aggressively promoted from within the corporate sector that was both its major sponsor and intended subject.

**The Exploitation School of Lean Critics**

Several studies have highlighted the stressful effects that Lean has on the work life of Japanese people (Kamata, 1982; Hutchinson *et al.*, 1996; Sugimoto,
1997). Some authors have suggested that Lean is primarily about greater power and control over workers (Wilkinson and Oliver, 1989; Sewell and Wilkinson, 1992; Delbridge et al., 1992; Delbridge 1995; 1995a; 1998). Delbridges' ethnographic study of workplace relations (1995; 1998) described one Japanese transplant as a fast-paced and highly stressful working environment. Stewart and Garrahan (1992) conveyed similar findings based on research accounts from former employees at Nissan’s Sunderland plant. Gill (2003) found that Lean leads to elevated stress levels, increased worker turnover, absenteeism and time loss due to accidents. Gall (2007) proposed that Lean is simply the latest in a long line of management techniques designed to increase worker exploitation. Recently, Stewart et al., (2009) examined worker responses to Lean at Vauxhall-GM and Rover/BMW and found that they are intimately tied to changing patterns of exploitation in the car industry. They concluded that:

‘at the heart of lean lies the irreconcilable contraction between the rhetoric of success, security and a range of enriching employment experiences, and the reality for many millions of workers, of exclusion, insecurity and deteriorating employment experience ...many workers whose work and lives have been devastated by the ravages of lean production’

(Stewart et al., 2009, p. xi).

The exploitation school of Lean critics was essentially concerned with the displacement of cost and risk onto labour and suppliers.

**The Transfer School of Lean Critics**

Some authors criticised Lean for its claims to universal applicability, disputing the claims prevalent in the Lean literature that Lean was the dominant production method of Japanese industry (Pilkington, 1998; Jorgensen, 2008). Cooney (2002) described the claimed universality of the Lean production concept as a chimera, arguing that Lean is an addition to rather than a replacement for existing production systems. Many authors noted that Lean requires modification (Cusumano, 1994; Katayama and Bennet, 1996; Miyai, 1996; James-Moore and Gibbons, 1997; Cooney, 2002).

Lee and Jo (2007) categorise the ongoing debate on the transferability of Lean into four perspectives:

1. The convergence perspective which drew upon the IMVP work (Womack et al., 1990) and treated Lean as a universal set of management norms that can be transferred anywhere. From this perspective, Lean is the system into which every business player tends to converge when trying to survive in the contemporary global market.

2. The structuralist perspective which denied the transferability of Lean, emphasising the unique socio-economic context in which Toyota exists (Williams, 1992; 1994; Nakamura et al., 1996; Cooney, 2002).

3. The contingency perspective which postulated a compromise by considering both the superiority of Lean and the necessary pre-conditions and constraints relating to its transferability (Kast and Rosenzweig, 1985; Harber et al., 1990; White et al., 1999; Mehta and Shah, 2004).

4. The ‘emergent process’ perspective which viewed the spread of Lean as an evolving and indeterminate transformation process which can lead to various outcomes depending on the form adopted (Liker et al., 1999).
Bartezzaghi (1999) in particular distinguishes between a production model and a production paradigm, arguing that while TPS was a specific production model it later became recognised as a production paradigm from which emulators have developed their own production models, through a process of interpretation and transmutation.

Certain authors have suggested that Lean is weak in its ability to accommodate variations or reductions in demand for finished productions (Miyai, 1996). Others have questioned the application of Lean to low volume, high variety production environments. For example, Jina et al., (1997) commented that implicit in most widely publicised examples of successful Lean manufacturing is the fact that the complexities of satisfying order winning criteria have been mitigated by high production volumes. They argue that that most companies will need to adapt Lean practices to meet their special circumstances. Christopher and Towill (2000) suggested that organisations will need to progress from Lean and functional supply chains to agile and customised ones.

Many authors noted that successful Lean implementation is dependent upon several organisational factors such as management strategies, labour-management cooperation, employee and union involvement, investment in training (Harber et al., 1990; White et al., 1999; Hines et al., 2008). Other authors observe that Lean is also conditioned by external forces such as market situations, international division of labour, local institutional environment and social culture (Liker et al., 1999; Mehta and Shah, 2004). Some authors stress the importance of considering the evolution of firms and transplants in the light of their own trajectories and particular histories (Pardi, 2005).

A number of authors have highlighted the role of the national context in Lean implementation. Nakamura et al., (1996) emphasise the influence of different social contexts (culture, social relations, economics conditions and business practices) across international boundaries. Similarly, Doeringer et al., (2003) revealed national differences in Multinational National Enterprises (MNEs) in the US, the UK and France. Kumon (2000) highlights differences between American and European Lean researchers and observes that: while American researchers tend to see the transferability of Lean in positive terms; European researchers tend to focus on the selectivity of introduction or hybridisation based on the trajectory of the firm.

Some authors emphasise the role of the social context in Lean implementation. Cooney (2002) claims the Lean concept simply does not encompass the influence of social and political institutions. Therefore, Lean has evolved under Toyota’s singular conditions and its substance can only be transferred to other structural contexts with difficulty. Majek and Hayter (2008) suggest that hybridisation is a search for an appropriate mix of practices that ensure viability in local circumstances rather than the transfer of established best practices. Several authors are wary of the wider notion of best practice (Pilkington, 1998; Dahlgaard-Park and Dahlgaard, 2007).

Seddon (2005) specifically questions the application of Lean in the service sector. While he concedes that TPS is probably the most highly developed, best articulated and most successful example of systems thinking applied to a
business organisation in the world (Seddon and Caulkin, 2007), he is critical of Lean (as a movement) for promoting tools which are concerned with how to do it thereby obscuring the importance of perspective and how to think about improvement (Seddon, 2005).

The Financial Benefits School of Lean Critics

A number of authors have questioned the assumption that Lean leads to financial benefits (Lewis, 2000; Cooney, 2002). In an early attempt to address the lack of empirical evidence on the financial outcomes of Lean implementation, Oliver and Hunter (1998) conducted longitudinal research and found the links between manufacturing practice and financial performance to be complex and problematic. Several authors suggest that these problems lay primarily with traditional accounting convention and practice (Yishikawa et al., 1993; Maskell and Baggaley, 2004; Johnson, 2007). Darlington et al., (2008) argue that Lean Accounting has become the foremost topic of discussion amongst Lean practitioners over the last two years.

Summary

The purpose of this paper was to offer the reader a structured overview of the various commentators who have objected to lean over the years. The purpose was not to offer opinion as to the validity or otherwise of these objections but to raise awareness. The lean movement is strong both sides of ‘the water’. In fact the practitioner community was barely impacted by the polemics within the academic community. This is in spite of the fact that the academic origins of lean are frequently cited by practitioners is being key to their belief in the efficacy of lean. It is the author’s hope that this brief overview has enriched the readers’ knowledge and understanding of the some of the dissent and debate that has taken and continues to take place in a world that often seems irrelevant and even alien to lean practitioners.

References


Seddon, J. 2005. *Freedom from Command and Control: a better way to make the work work, the Toyota system for service organisations.* second ed. Vanguard Education Ltd.


