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Analyzing management trends and their effects

BRIEF NO. 2 – LEAN PRODUCTION

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The lean method of production gained global prominence in the 1990s and 2000s. Lean production, with a name evoking slimness and flexibility, was devised to make automobile factories in Japan more productive by streamlining manufacturing processes and spread to the public sector in North America and Europe at a time when governments were looking for ways to bring costs down. As consulting firms hired by the public sector began to get rich off the approach and the New Public Management (NPM) movement took hold, lean production came into its own as a public cost-cutting measure, and its impact over the past 30 years has been extensively documented by researchers. In this brief, we will identify how these changes have compromised the quality of public services, eroded working conditions and resulted in wasted resources.

Where did lean production come from?

- 01 The management approach now known around the world as “lean production”¹ can trace its roots back to Japan. In the aftermath of World War II, Japanese automobile companies such as Toyota were looking for a way to increase their international competitiveness with limited financial resources and storage capacity. As a solution, their engineers came up with a work method that focused on reducing production costs by eliminating waste.
- 02 The global industrial success that Japan enjoyed in the aftermath caught the attention of automobile manufacturers and management experts in the United

Key points

- Lean production was devised for use in Japanese automobile factories. It seeks to reduce production costs by systematically eliminating waste in all its forms, including wasted time.
- Lean methods involve intensifying the pace of production, resulting in poorer working conditions, as seen in workplaces such as call centres.
- The lean philosophy is incompatible with the public sector, weakens public services and results in wasted resources.

¹ It also is known by many other names, including “lean management,” “lean manufacturing” and “Toyotism.”

States. In the late 1980s, the US automotive industry invested nearly \$15 million in a research program at the Massachusetts Institute of Technology,² out of which eventually came *The Machine That Changed the World* by James P. Womack, Daniel T. Jones and Daniel Roos. The book was a bestseller, propelling the authors to prominence as thought leaders in the lean production movement.³

- 03 In the wake of the book's success, consulting firms began spreading the lean method of production across the economy, including the tertiary sector.⁴ Today, no industry has been left untouched by the lean philosophy, from forestry and agri-food to construction and the service industry—and that includes the public service sector.

How does lean production work?

- 04 The first rule of lean production: anything in the workplace that does not add value is considered waste and must be eliminated. Waste—or *muda*, in Japanese—can take many forms, including overproduction, waiting, excess inventory and unnecessary transportation.⁵ Effort must therefore be made to create smoother, “tight flow” production processes, meaning no inventory is held in storage and the rate of production is directly aligned with demand. Second, the lean organization approach follows the principle of “just-in-time” production, which aims to eliminate the storage of components to reduce the risk of obsolete inventory. And third, lean production is purported to empower and engage workers to manage quality and prevent bottlenecks via “Kaizen groups” that seek to continuously improve production processes.
- 05 In practice, however, the lean method is primarily characterized by intensification of the production process. To some, the lean philosophy is nothing more or less than a new iteration of Taylorism, a workflow organization system invented by Frederick W. Taylor in the late 19th century.⁶ Lean production evokes the spirit of Taylor's “scientific” approach to management, in which workers' every move in the production process is tracked in the interest of greater productivity.

What are the ramifications of lean production?

POORER WORKING CONDITIONS

- 06 Ironically, lean production went mainstream just as it was being called into question in its birthplace of Japan. Employee retention issues led Japanese automobile companies to soften

their approach to production in order to make their workplaces more attractive and worker-friendly.⁷

- 07 One Canadian study conducted in the mid-1990s found that lean production made work at the 16 companies studied more intense and oppressive.⁸ It has also been shown that, regardless of the degree of control workers may have over production, the heightened intensity of their work under lean production does not yield a greater sense of employee autonomy as promised, but is instead primarily associated with a greater risk of injury, high blood pressure, depression and other mental health conditions.⁹
- 08 Another study, this time of an auto assembly plant owned by General Motors and Suzuki, found that even when workers were consulted in the lean production process, discussions were strictly controlled and did not address workers' concerns. And since the work was still standardized and repetitive, some felt that the lean methodology was nothing innovative, but instead a rather conventional form of assembly line production.¹⁰
- 09 The same trend has been observed in Europe, where the imported model of lean production has been extensively studied. Research on the state of work throughout Europe has found that, while in theory lean production should result in a well-defined and controlled kind of worker autonomy, in practice it usually results in poorer working conditions, and tight workflows deprive workers of any true autonomy.¹¹

The decline of public services

- 10 After making its way through the world of manufacturing, the idea of lean production was imported to the public sector. With budgets for social programs constantly strained amid the late-20th-century shift toward neoliberalism, it is hardly surprising that governments looking to cut public spending by any means necessary would be intrigued when management consulting firms brought up the idea of lean production.¹²
- 11 However, unlike an assembly line, where measuring the duration of each step is more feasible, public service involves

2 In 2024 dollars. Paul-André Lapointe, “Recadrage critique du récit managérial des mutations organisationnelles : l'introduction du lean et la crise du travail dans les hôpitaux et les CHSLD du Québec,” *Ad Machina : L'avenir de l'humain au travail*, no. 6, 2022.

3 James P. Womack, Daniel T. Jones and Daniel Roos, *The Machine That Changed the World*, New York: HarperCollins, 1991, 323 p.

4 Lapointe, op. cit., 2022.

5 Sébastien Bruère, “Les liens entre le système de production lean manufacturing et la santé au travail : une recension de la littérature,” *Revue multidisciplinaire sur l'emploi, le syndicalisme et le travail*, vol. 8, no. 1, 2013.

6 David Robertson et al., “Team Concept and Kaizen: Japanese Production Management in a Unionized Canadian Auto Plant,” *Studies in Political Economy*, vol. 39, 1992.

7 Koichi Shimizu, “Un nouveau toyotisme?” p. 83–116, in Michel Freyssen et al., *Quel modèle productif? Trajectoires et modèles industriels des constructeurs automobiles mondiaux*, Paris: La Découverte, 2000, 530 p. Jos Benders and Masaya Morita, “Changes in Toyota Motors' Operations Management,” *International Journal of Production Research*, February 2007.

8 Wayne Lewchuk and David Robertson, “Working Conditions under Lean Production: A Worker-Based Benchmarking Study,” *Asia Pacific Business Review*, vol. 2, no. 4, p. 60–81.

9 Andrew Jackson, *The Unhealthy Canadian Workplace*, research paper no. 19, Canadian Labour Congress, November 2002, p. 5.

10 David Robertson et al., op. cit.

11 Antoine Valeyre, “Les conditions de travail des salariés dans l'Union européenne à quinze selon les formes d'organisation,” *Travail et Emploi*, no. 112, October–December 2007, p. 35–47.

12 Advocates of lean production generally agree that, as a work organization method, it should not be used for budget-cutting purposes. Managers in the Quebec public sector who have commented on the introduction of lean production into health care have voiced their support for this position, while neglecting to acknowledge that the Quebec government imposed austerity policies during the years that the Ministère de la Santé et des Services sociaux was implementing lean principles. Marie-Pier Bourdages et al., “Leçons apprises d'un déploiement de l'approche lean dans des établissements de santé et de services sociaux au Québec,” *Le Point en santé et services sociaux*, vol. 13, no. 1, 2017, 11 p. Paul-André Lapointe, 2022, op. cit.

THE EXAMPLE OF CALL CENTRES

The Canadian call centre industry, which employs over half a million people,¹ looms large in the country's present-day service sector landscape. Working conditions in this industry are often difficult, and the use of lean practices has made the situation worse by placing conflicting demands on workers, who want to provide quality service but are under pressure from their employers to handle higher call volumes.

A study of 480 call centre employees in Australia's telecommunications industry looked at the factors leading to emotional exhaustion among these workers, and found that one of the main contributing factors was the requirement to follow a standardized script. When employees can only express the emotions permitted within the bounds of the procedure that their employer deems best for handling customer interactions, they are unable to exercise the discretion they need to build a positive rapport with customers. This lack of flexibility can undermine the quality of the emotional labour performed.²

The study also noted that workers who spent more time on the line with each customer on average were less likely to suffer from emotional exhaustion. Since emotional exhaustion is often a predictor of absenteeism and sick leave, the study concluded that it is in employers' best interest to allow employees more flexibility in their duties, rather than imposing an overly strict approach.

An Israeli study of a financial services company found the same relationship between call duration and levels of burnout (defined as a combination of exhaustion, a reduced sense of accomplishment and depersonalization): the shorter the calls, the higher the likelihood of burnout.³ This means that lean production, with its emphasis on handling higher call volumes, could negatively impact workers' mental health and ultimately compromise the quality of service provided.

- 1 Marla Jackson, *Employee Health and Well Being: Trends in the Call Centre Sector*, research report, Shepell·fgi, 2008 series, vol. 2, no. 1.
- 2 Stephen Deery, "Work Relationships in Telephone Call Centres: Understanding Emotional Exhaustion and Employee Withdrawal," *Journal of Management Studies*, vol. 39, no. 4, June 2002.
- 3 Luria Gil et al., "Spending More Time with the Customer: Service-Providers' Behavioral Discretion and Call-Center Operations," *Service Business*, vol. 9, February 2014, p. 427–443.

dealing with people whose demands and reactions cannot be fully predicted. As a result, the lean approach has proved to be incompatible with the service industry on a number of occasions, especially given how the concept of "service" is understood in the public sector. This was exemplified in France during the pandemic, when French authorities had to reckon with a past decision to do away with the country's mask reserves to reduce storage costs. By taking a shortsighted approach to management and failing to plan for contingencies, like the supply chain disruption that occurred during the COVID-19 pandemic, the government put the public at risk.¹³

- 12 Lean production, with its emphasis on productivity—exemplified in the way tasks are broken down into smaller parts, streamlined and standardized and time and movements are closely tracked—and cutting costs by any means necessary, puts service workers in tightly controlled workflows with a limited workforce. This runs counter to the human-centred approach that these workers take to provide their services. In their interactions with service users,

13 Arnaud Mercier, "La France en pénurie de masques : aux origines des décisions d'État," *The Conversation*, March 22, 2020.

Another study, of 28 call centres in Sweden, showed that workers tended to have lower levels of stress when the level of task complexity was higher.⁴ In other words, the cognitive stimulation associated with more complex tasks made working at a call centre less exhausting. A study out of the US likewise noted that stress related to call centre work, particularly the stress of surveillance, can be mitigated by giving employees more control over their work (call length and volume, flexibility to deviate from standardized procedures, etc.).⁵

Yet another study, of call centre working conditions in South Korea, found that "micro-breaks," along with socialization and relaxation at work, not only had a positive effect on employees, but were also associated with better sales performance in the call centres studied.⁶ Despite the benefits of micro-breaks, from a lean perspective they might be seen as a gap in the workflow that should be closed.

And a study of women's employment in call centres in Ireland, the Netherlands and the UK confirmed that the high proportion of women in the industry (women made up 60%–90% of the workforce at the turn of the 21st century) is due to the fact that stereotypically female behaviours such as "caring, communicating and making people feel good" are valued in call centre jobs.⁷ But because employers also believe that women are better suited to concentrating on repetitive tasks, women in call centres do not always get to fully demonstrate the qualities ascribed to them. The influence of lean-inspired methods could further limit opportunities for growth in the workplace, to the detriment of employees' mental health.

- 4 One third of the 1,183 people surveyed for this study worked for public sector call centres. Anders Kjellberg et al., "Stress, Energy and Psychosocial Conditions in Different Types of Call Centres," *Work*, vol. 36, no. 1, 2010, p. 9–25.
- 5 Philip E. Varca, "Telephone Surveillance in Call Centers: Prescriptions for Reducing Strain," *Managing Service Quality: An International Journal*, vol. 16, no. 3, 2006, p. 290–305.
- 6 Sooyeol Kim et al., "Daily Micro-Breaks and Job Performance: General Work Engagement as a CrossLevel Moderator," *Journal of Applied Psychology*, 2018, vol. 103, no. 7, 2018, p. 772–786.
- 7 Except in computer services call centres, where women made up about half of employees. Vicki Belt et al., "Women, Social Skill and Interactive Service Work in Telephone Call Centres," *New Technology, Work and Employment*, vol. 17, no. 1, 2002, p. 20–34. Another study found that women account for 71% of the global call centre workforce. David Holman et al., *The Global Call Center Report: International Perspectives on Management and Employment*, report, 2007, 63 p.

they are engaging in human-to-human relationships, and this cannot be likened to assembly line work.

- 13 The lean philosophy disregards the immeasurable value of the emotional labour that is fundamental to public service jobs. Instead of shaping raw materials into products, public servants and professionals use language to shape their interactions with service users. The dissonance that workers feel in this untenable position causes psychological distress, which can lead to depression.¹⁴

Wasted resources

- 14 Just as the adoption of a lean approach to organization tends to result in poorer working conditions and lower-quality service due to an intensified pace of work, it can also easily lead to wasted resources. Despite the lack of scientific evidence behind it, private sector consulting firms have jumped on the bandwagon and won lucrative public sector contracts to bring lean production to public service.

14 Paul-André Lapointe, op. cit.

LEAN HEALTH CARE IN QUEBEC

In 2008, then-Minister of Health and Social Services Yves Bolduc announced plans to incorporate lean production into Quebec's health care and social services institutions,¹ which largely came to fruition in 2012–2016. One high-profile story, however, revealed how crudely the principles of lean production could be applied in public service.

In 2012, the Ahuntsic/Montréal-Nord health and social services centre hired a consulting firm to “optimize” its home care service program and cut costs by 10%. The firm heavily scrutinized the workers' duties and came up with a set of standards that were often impossible to meet. The union representing the workers took the case to court and, in 2017, the Superior Court of Quebec upheld an arbitrator's decision that found the health and social services centre to have violated its employees' “right to fair and reasonable working conditions . . . resulting in moral injury.”²

In his decision, the arbitrator recounted how the consulting firm decided that one occupational therapist's home visits should be 30 minutes long, yet her assessment with the firm's IT professional needed two hours. The “representative standards” set by the employer at the consulting firm's recommendation were unrealistic. A social worker also testified that the targets allowed no flexibility to deal with unforeseen events. Such contingency planning is essential in social work, especially when working with vulnerable populations.

- 1 Jonathan Montpetit, “Toyota sert d'inspiration au ministre Bolduc,” *La Presse*, July 13, 2008.
- 2 Carol Jobin, *Alliance du personnel professionnel et technique de la santé et des services sociaux (APTS) et Centre intégré universitaire de santé et de services sociaux (CIUSSS) du Nord-de-l'Île-de-Montréal*, arbitration tribunal decision, March 7, 2016. Babak Barin, *CIUSSS du Nord-de-l'Île-de-Montréal c. Jobin et APTS*, judicial review judgment, April 21, 2017 (our translation).

LEAN HEALTH CARE IN SASKATCHEWAN

The case of Saskatchewan's 2012–2014 experiment in applying lean thinking to health care—the largest of its kind in North America—is illuminating as to the kind of waste that these reforms can cause. The provincial government paid \$35 million to consulting firm John Black and Associates and spent \$17 million to promote the kaizen philosophy within the public service, before ending the experiment after just three years.¹ A study found no evidence that lean initiatives had a positive effect on indicators of patient health or satisfaction, and furthermore found that public spending and workers were negatively affected. With the savings of the Saskatchewan experiment estimated at less than \$60,000, the authors of the study calculated that for every dollar that the provincial government saved, it spent \$1,511 in consultant fees and training costs.

- 1 John Moraros et al., “Lean Interventions in Healthcare: Do They Actually Work? A Systematic Literature Review,” *International Journal for Quality in Health Care*, vol. 28, no. 2, 2016, p. 150–165.

- 15 Because lean production involves monitoring service delivery outcomes as closely as possible, it can often create a heavier administrative burden. A common criticism is that more time is spent on paperwork, resulting in less time spent with service users. For example, social workers in Quebec have reported that one particular personal assessment form has ballooned from 8 pages to 60 in a matter of years for the sake of keeping tabs on statistics.¹⁵ Far from being anecdotal, numerous examples of initiatives to develop lean practices in the public sphere can be found in every Canadian province.

Lean production: The takeaway

The 1990s saw the private sector draw on lean production, a concept devised for use in Japanese manufacturing, as inspiration for cutting production costs. The spread of lean management around the world and across different parts of the economy, despite being more of a fad than anything grounded in real science, has been to the detriment of working conditions. It has also been adopted for public services in a bid to reduce government spending. The lean philosophy is fundamentally incompatible with the type of services provided in the public sphere and has not given the public a higher quality of service, but that has not stopped governments from awarding consulting firms contracts to introduce lean production into different domains. Instead of striving to achieve the “tight flow” production promised by the lean framework, public and private sector entities alike would do well to take the case studies featured in this brief as encouragement to reduce the intensity of employees' work and give them meaningful control over their jobs.

15 Marjolaine Goudreau et al., “Un système de santé qui rend malades ses soignants,” *Le Devoir*, April 11, 2019.