

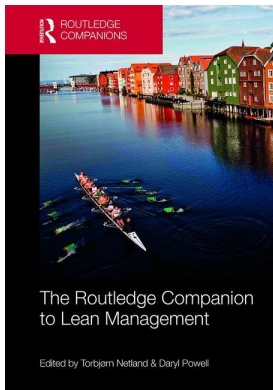
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LEAN PUBLIC SERVICES

*Zoe Radnor***Introduction**

Public service reform has been on the political agenda since the late 1970s and has included such approaches as the 3Es (economy, efficiency, and effectiveness) through to *best value* and *new public management* (NPM) (Rashman and Radnor, 2005). More recently, “lean thinking” has become a prominent and popular approach to public service reform. In the current era of constrained and reduced public spending, it has promised to maintain service productivity, improve resource utilization, and maintain service quality. In short, it has been promoted as enabling public service providers to “do more, with less” (Radnor et al., 2012). This chapter will review the application of lean in public services, illustrating that to date there has been an over-focus on technical tools without an understanding of the principles and assumptions of lean, or the context in which it is being implemented. The chapter will conclude that to develop further there needs to be greater consideration of the underlying logic and theories of service management.

In the US and UK in 2005, the total outlay on public services as a percentage of National Gross Domestic Product (GDP) was 35.9 percent and 44.5 percent respectively (Pettigrew, 2005) rising from 12.7 percent and 24.0 percent in 2001 (Karwan and Markland, 2006). In 2011, the Index of Economic Freedom reported that government spending as a percentage of National GDP was 38.9 percent for the USA and 47.3 percent for the UK (Index of Economic Freedom, 2011). During this same period (2005–2011) both countries, as well as other countries such as Greece and Portugal, have experienced a profound recession leading to budgetary and spending cuts across the public sector. In England, for example, the Operational Efficiency Report (HM Treasury, 2009) in April 2009 stipulated that potential savings of around £10 billion a year should be sought over three years across public services.

This growing pressure on public services across the Western world has led to a focus on increased efficiency over and above the outcome measures of effectiveness and equity. Both public services, including health (Guthrie, 2006; Fillingham, 2008) and local government (Office of the Deputy Prime Minister, 2005; Krings et al., 2006), and central and federal government (Richard, 2008; Radnor and Bucci, 2010) have responded by implementing a range of business process improvement methodologies including lean thinking, Six Sigma, business process reengineering, continuous improvement, and total quality management. Tellingly, in the literature review presented in this chapter, focusing on the use of these methodologies in the public

sector, 51 percent of publications focused on lean, with 35 percent of these within health services (Radnor, 2010a).

This research on lean has suggested it can offer significant impact related to quality, cost, time, and even the satisfaction of both staff and service users. Connecticut Department of Labor, for example, eliminated 33.5 staff hours in its work by the redesign of its processes, saving \$500,000 in staff time over a year. Likewise, Solihull Borough Council produced a £135,000 saving in the postal costs for its fostering service, through a lean review (Radnor, 2010a). Other reported benefits have included the reduction of waiting time for public services and a reduction in service costs through a reduction in resource utilization (Silvester et al., 2004) as well as intangibles such as increased employee motivation and satisfaction and increased customer satisfaction (Radnor and Boaden, 2008).

This apparent success story marks the starting point of this chapter. Through exploration of the empirical literature, and referring to a large evaluation within the public sector (Radnor and Bucci, 2007), it will reflect on this success story. The chapter will argue that although lean appears to have had a successful impact within public services, the actuality has been one of easy successes and a lack of sustainability and resilience in the benefits achieved.

It could be argued the majority of studies about lean thinking in the public sector to date are not comparative or rigorous (Lilford et al., 2003). Carefully selected case studies have been used to promote benefits in public services without a balanced view of the negative aspects or consideration of the influence of other factors. Radnor and Boaden (2008) stated in an article that lean may be a panacea, because there is evidence indicating that it can support and help in addressing some of the inefficiencies in public services focused around processes and practices. However, it may also be a paradox, because many public service managers appear to be attempting to apply it without fully understanding its underlying principles, seeing it merely as another policy or set of tools. More recently Radnor and Osborne (2013) argued that lean could be a failed theory for public services, due to the easy successes but a lack of underpinning sustainability. They argue that lean does have the potential to have a substantial impact upon public services reform. To achieve this, however, it should not be treated as a theory in its own right. Rather it needs to be situated within *public service-dominant business logic* (Osborne et al., 2013) to achieve enduring benefits for public services and their users.

This chapter will unpack these views, suggesting that the current picture is that lean in the public sector has focused on tools and not on culture, and considering the consequences of why and what this means for its implementation. The chapter will consider the application of lean in public services through a literature review and an evaluation study in order to present a discussion of what has been introduced, examples of where it has been introduced, and what the relevant factors are for informing its understanding, application, and implementation. The chapter focuses on the empirical data from the UK due to the country's historic (Radnor and Bucci, 2007) and planned (HM Treasury, 2009) focus on lean.

Lean Thinking in the Context of the Public Sector

The implementation of lean is often described as “a journey,” with the various stages of the implementation being landmarks of the total journey (Bicheno, 2004; Hines et al., 2008). This journey is described by some authors as about developing a lean philosophy, suggesting that organizations should aim to create “a lean lifestyle” (Hines et al., 2008). Hines et al. (2004) note that the framework of lean often exists at two levels: at a strategic level focusing on the principles and at an operational level focusing on the tools and techniques. In later publications, Hines et al. (2008) develop this concept with the aid of an iceberg model illustrating two main elements: below the

waterline the enabling elements of strategy and alignment, leadership and behavior, and engagement, and above the waterline visible technology, tools and techniques, and process management.

This iceberg model (Hines et al., 2008) indicates that strategy should be the foundation, supported by decisive leadership and an engaged workforce, to understand the processes and then use a range of tools and techniques to improve the processes. A number of tools are used throughout the model, including policy deployment, visual management (making information visible), standardized work, 5S (housekeeping practices), and process mapping (Hines et al., 2008). The model illustrates the technical (above waterline) and culture (underwater) aspects of lean and supports the idea that lean is a journey which takes time, with people needing to engage with and embed ideas (Radnor and Walley, 2008). So, considering lean as a journey and that it needs to consist of two elements—tools and culture—then through evaluating its implementation in public services, to what degree have the two elements been embraced? However, before considering this let us understand the context of the public sector.

Table 28.1 summarizes the key differences between the private and public sectors. Often the accepted role of the private sector is to engage in commercial enterprise, for profit. Firms are generally free to engage or not engage, purchase inputs at the market price, and abandon activities at will. Principally accountable to their owners, businesses are held accountable by the market against several “hard” indicators, especially profitability (Steward and Walsh, 1994). Whereas the key purpose of public services is to undertake activities in areas where profit cannot be made, but the interests of society demand that the activities occur (Drucker, 1993; Box, 1999). Unlike the private sector, Smith (1995) argues public sector services must continue to operate however difficult the local environment, or even despite clients’ inability to pay, sometimes delivering nationally and regionally.

Kelly et al. (2002) suggest that most public sector enterprises have multiple objectives with no single “bottom line.” Even though financial indicators and ratios are widely used in the private sector with ratios permitting comparisons between choices and market accountability within the public sector, profit is an oxymoron (Johnson and Broms, 2000). Therefore, often financial indicators and ratios have limited application and receive little effective executive attention within government.

Comparing the two sectors, “from the bottom up” at a basic level, managerial requirements are similar between the two sectors, e.g. management of human resources, budget, project management, service delivery, etc. However, from a “top-down” perspective, democratic values, ministerial demands/politics, laws, and rights, etc., shape a very different picture of managerial requirements (Savoie, 2003; Good, 2004).

In summary, while public and private sectors require similar basic management functions, the differences in environment, context, and constraints do affect the managerial role and the way it is performed (Mintzberg and Bourgault, 2000). Public sector management is more complex, addressing key issues of equity, transparency, and probity, within a political context (Wilson, 1989; Osbourne and Gaebler, 1993; Pollitt, 2003). Due to these differences, it can be argued that simply adopting private management practices, including lean practices, into public management may not lead to the significant improvements expected and, in fact, what is needed is “adaptation” of the approach (Radnor and Boaden, 2008). The next section will consider this further through presentation of a case study in a large UK government department.

Case Study: Lean Public Services in HMRC

Her Majesty’s Revenue and Customs (HMRC) was established in April 2005 and is a non-ministerial department, accountable to the Chancellor of the Exchequer. HMRC is responsible

Table 28.1 Key differences between the private and public sectors

<i>Issue</i>	<i>Private sector</i>	<i>Public sector</i>
Overall direction	<ul style="list-style-type: none"> • Profit • Some attention on future profit 	<ul style="list-style-type: none"> • Government/minister establishes directions • Long term frequently limited to next election • Subject to contradictory pressures • Highly adversarial relations between political parties • Direction may be at policy not administrative level
Legislative and judicial	<ul style="list-style-type: none"> • Minimum set of law constraining all business (tax, environmental, employment, etc.) 	<ul style="list-style-type: none"> • Citizen “rights” • Government managers must conform to legislation regardless of costs • Generally subject to scrutiny by legislative oversight groups or even judicial orders
Authority	<ul style="list-style-type: none"> • Authority is generally invested in one CEO • Can operate in any sector/market 	<ul style="list-style-type: none"> • Authority is often shared between senior officers/managers and professional people (politicians, lawyers, doctors/surgeons, academics, etc.) • Limited authority to expand/contract “sphere of operations” and to disengage from activities which are not meeting current goals
Overall goal	<ul style="list-style-type: none"> • Profit • Application is also measured by increase/decrease in net returns on capital invested and shareholder/economic value added 	<ul style="list-style-type: none"> • Create and sustain citizen satisfaction • Economic, efficient, and effective • Value for money • Ethical and equitable
General culture	<ul style="list-style-type: none"> • Profit based • Entrepreneurial • Managerial style matches business needs • Innovative • Quicker decision making 	<ul style="list-style-type: none"> • Values based • Bureaucratic • Risk adverse
Accountability	<ul style="list-style-type: none"> • Through clear objectives • Owners, shareholders • Legal reporting requirement 	<ul style="list-style-type: none"> • Central agencies, parliament/ politicians, citizen • Information generally “acquirable” (e.g. access to information laws) • Role of media
Primary stakeholder	<ul style="list-style-type: none"> • Shareholder is dominant stakeholder 	<ul style="list-style-type: none"> • Conflicting and shifting stakeholder interests and dominance • Potential for conflict with government policy • Public media opinions influence decision making

Table 28.1 (continued)

Issue	<i>Private sector</i>	<i>Public sector</i>
Role of information	<ul style="list-style-type: none"> • Most held internally and remains confidential 	<ul style="list-style-type: none"> • Exposure to intense public scrutiny—“managing in a fishbowl” • <i>Access to Information Act</i>—managers must, and do, consider every memo, letter, briefing note, presentation, and email a public document • Consideration must always be given to public perception and the potential for political embarrassment, even for logical and sensible decisions
Budgets	<ul style="list-style-type: none"> • Flexible, based on expected profit, return on investment (ROI), economic value added (EVA) • Budgets subject to significant changes 	<ul style="list-style-type: none"> • Relatively fixed, stable budgets • Frequently budget based on previous year plus inflationary adjustment

Source: Various authors, including Rainey et al. (1976), Dunlop (1979), Allison (1997), Box (1999), Larson (2002), and Kroeger and Heynen (2003).

for administering taxes (both direct and indirect), National Insurance contributions and Customs duties. HMRC also pays and administers tax credits, Child Benefit, and the Child Trust Fund.

At the time of the research, there were four types of business units in HMRC: operational units, product and process groups, customer units, and corporate functions. The operational units employed over 70,000 staff and focused on delivering the services such as processing, local compliance, and customer contact. This research focused on HMRC Processing which in April 2006 developed and began rolling out a change program, “Pacesetter.” The four main elements of Pacesetter were defined as leadership development; operational management; lean; and workforce strategy and capacity management. The focus here is on the element of “lean.”

Almost every UK individual and business is a direct customer of HMRC. HMRC has over 30 million individual customers and 4 million business customers due to taxes paid by UK citizens and businesses. Pacesetter was developed by HMRC Processing to improve efficiency and customer service by delivering a 30 percent improvement in productivity, reducing backlogs and inconsistencies, and ensuring that HMRC Processing was among the best UK processors, the UK government’s processor of choice. Lean, one of the elements within Pacesetter, was designed to take a three-pronged approach by:

- redesigning service delivery processes to eliminate waste and variability and maximize flexibility, and to improve productivity and quality and reduce lead time;
- changing current management processes to create appropriate management infrastructure to sustain improvements;
- changing mindsets and behaviors of leaders and front-line staff to support the new systems and deliver continuous improvement.

Lean was being implemented in all HMRC Processing strategic sites. These were the larger sites that would incorporate the work of the smaller sites over a period of time and would use lean as

the way of working. In order to implement lean across these sites, there were a number of dedicated *local lean experts* based in local offices. They were supported by dedicated *central lean experts* who rotated over three-month periods between sites. In addition, these internal HMRC staff were supported by external consultants since lean was originally trialed and implemented in 2004. Consultants involved with the lean implementation had included McKinsey Consultants, PA Consulting and since January 2006, the Unipart Group (Radnor, 2010a). During the period of the research, many sites still had Unipart consultants on site working with the central and local lean experts in order to transfer learning and good practice.

In order to undertake the evaluation of lean, 10 HMRC strategic sites were identified by the Pacesetter Program Office. The 10 sites included five large processing offices (LPO), two distributed processing offices (DPOs), and three national processing centers. There was also a visit to the Pacesetter Program Office in London, prior to starting the site visits.

The site visits were undertaken between January and May 2007. These site visits, with one exception, were undertaken over a two-day period. As well as collecting data and material from the sites, semi-structured interviews and focus groups were undertaken with nearly 300 personnel representing a broad range of individuals using an interview schedule that was tailored to the different grades of staff.

The purpose of the site visits was to gain an understanding of the following aspects of lean:

- 1 When did the lean implementation start and what proportion of the site had been affected by it?
- 2 What was the understanding by staff of Pacesetter and lean and the links between them?
- 3 What was the qualitative and quantitative impact of the lean implementation?
- 4 What problems had occurred or what had worked well during implementation?
- 5 What had changed as a result of the implementation in terms of individual roles, the processes, the interaction with the customer, and the working of individual teams?

Secondary data was also collected from the sites and the program offices to aid the evaluation including Pacesetter Program documents and the Lean Academy handbook. Further data collected from the sites included the organization chart for the site, current and future state maps for the processes concerned, and information on performance collated over a period to identify trends.

Notes were taken of all interviews and the majority were recorded on a digital recorder and then transcribed so a full record was available. At the end of each site visit, a site report was prepared by the visiting researcher. This report summarized the main responses to the questions asked during the interviews and focus groups and highlighted the site-specific reflective notes of the visiting researcher. These reports were amalgamated at the end of the evaluation and common issues were chunked together and coded so that the research team were aware of which sites had raised the issues. The chunked data was used to develop a final evaluation report, which was validated by senior HMRC personnel (see Radnor and Bucci, 2007 for the full report).

Implementation

The findings will focus on which lean methods and tools were implemented and their impact in HMRC. First, it is interesting to consider how the approach taken in HMRC relates to the principles set out by Womack and Jones. Table 28.2 identifies the approach and tools within HMRC, and maps them against the five lean principles.

Table 28.2 highlights that many of the activities and tools being used focus on the fifth principle followed by the third principle. In terms of implementation and operations there was

Table 28.2 Principles of lean related to HMRC lean

<i>Lean principle</i>	<i>HMRC approach and tools</i>
1 Specify the value desired by the customer	<ul style="list-style-type: none"> • Process mapping, value stream maps
2 Identify the value stream	<ul style="list-style-type: none"> • Diagnostic of current state
3 Develop a continuous flow	<ul style="list-style-type: none"> • Standard work • Visual management • Key performance indicators (KPIs) for quality and productivity
4 Introduce pull between all steps where continuous flow is impossible	<ul style="list-style-type: none"> • Line balancing • Flag system in the teams: visual small flags used by the member of staff to indicate that they were free to take on work
5 Manage toward perfection so that the number of steps and the amount of time and information needed to serve the customer continually falls	<ul style="list-style-type: none"> • Workplace assessment • 5S • Structured problem solving • Stretch targets and timings • Visual management/performance boards • 3Cs • Process hubs • Go and see

pressure to implement standard processes across the LPOs and DPOs based around the four key processes: *self-assessment*, *employee maintenance*, *open cases*, and *post*. There were “process owners” across a number of the strategic sites who both developed and managed the changes for a particular process. At each LPO/DPO there was a diagnostic stage which considered the “current state” and consisted of a location diagnostic for the whole site and a process diagnostic for each process. The location diagnostic considered the set-up of the teams and processes whereas the process diagnostic also included mapping (value stream) and considering the volumes/demand on the office. The next stage was to implement the future state, which had been designed by the process owners and included setting the targets to be achieved through the implementation of the standard process. The targets agreed between senior managers and directors were often “stretch” targets designed to increase performance. All these stages involved all grades of staff often with “pilot” teams within each process.

However, staff at the LPO/DPO sites later felt they had not had significant involvement in the development of the processes. There was considerable evidence that many of the staff felt that lean was imposed and that front-line staff had no real say in how it was implemented. A specific example of this is when standard work instructions appeared not to have always been explained to the staff. Staff stated that they were not “fit for purpose” and that when they tried to change them (through the appropriate procedure through the process owners) they were not successful. This led to some teams in some sites openly admitting that they were no longer following the standard instructions.

Unlike the LPO/DPO offices, the national processing centers developed and implemented their own standard processes through the diagnostic process. Within these diagnostic processes more flexibility was built in with teams being able to take time out for meetings and problem solving to reflect on the design and development of the new processes. The research team was informed that at these sites the senior management had been very firm with the program office with regard to the Pacesetter timescales for implementation. They had also been very determined,

through the presentation of a business case, to keep Unipart consultants until there was no longer a need for them. This was so that the consultants could be involved in, as well as set up, “mini” program teams to manage and coordinate the roll-out of lean working with the local lean experts; the justification was that the involvement of Unipart and the full implementation of lean should be based upon business needs and not just led by an end date stipulated in a contract. At these sites, the level of “buy-in” and understanding among the staff was much more apparent and positive.

In terms of continuous improvement, from the interviews it became apparent that while attention has been paid to increasing productivity and the detection and prevention of errors, the focus on customer needs and staff motivation was sometimes lost in the pressure to achieve targets. Some sites did not achieve all their targets and some targets were viewed as unachievable. This was summed up in the Union documentation as lean “creating a divisive, unhappy working environment with low morale, no challenge, and bored employees.” It is important to note that the way that the non-achievement of targets was treated differed across the sites. At two sites, teams were under pressure to achieve targets but were not criticized for not doing so. At other sites, the good performers in the team felt more pressure to hit the targets because they were compensating for the poorer performers. It seems that lean or team working had not motivated the poorer performers to raise their performance nor had lean allowed individuals to perceive that they were using their experience or knowledge.

Additionally, the lean teams were not always using the tools and techniques to generate and support improvement, too often focusing on poor performance (i.e. the tools were being used to ask “why not” rather than “how to”). The format of the daily meetings, which were described to and witnessed by the research team, were about discussing (or finding reasons for) non-achievement of targets (i.e. poor performance) rather than improvement. If daily meetings were carried out based on continuous improvement then they could be used to motivate teams, seek improvements, or praise improving performance. They would also not be seen as a “waste of time and resource when I could be getting on with some real work and meeting the targets.” Only at two of the national processing sites and the model office was the focus less on the non-achievement of targets at the daily meetings. Here, fundamental reasons as to why targets were not achieved were looked for, good performance was praised, and training issues and problem solving discussed.

Supporting the implementation of lean there were a number of training activities. One at Unipart’s office in Cowley where they were able to see lean in action, and another titled “Learning to Lead in a Lean Environment” which was held at various locations depending on the needs of the attendees. Senior managers who attended the courses stated how useful, they were particularly the second one, and how they had now been able to see the benefits and understand the components of a lean approach more clearly. At the other extreme, the staff training was described by one person “a day of playing games like being back at school.” Some felt that the focus of the day was on what lean was and not how it was going to be implemented within HMRC, and nor was there any analysis of their skills in relation to the new lean work.

The central and local lean experts attended over a period of time three “lean academies” run by a combination of HMRC and Unipart. The training received by the lean experts was important due to the various backgrounds, skills, and experiences held by the experts. Many from within the business mentioned how they knew little about lean but became “experts” overnight. This meant often learning on the job and from the Unipart consultants. Some local experts felt that the central experts, who moved from site to site, had little ownership of the business and so only wished to be involved in elements that either interested them or helped to develop their career. However, the local experts are managed by the business, therefore often could not see where changes were needed nor were able to address difficult situations with senior management. The central experts met with the rest of the Pacesetter team twice a year as well as having a regular fortnightly

teleconference, whereas the local experts had no formal mechanism to meet the local experts from other sites. As a result, there was limited opportunity for face-to-face contact between both sets of experts to discuss “hot issues,” new developments, and good practice. The result of this was that frequently experts interpreted some of the standard practices in their own way, meaning that often practices were not standard.

Reflecting more broadly on which tools and techniques of lean were felt to be important, and which ones should remain and support sustainability, a variety of staff across the sites mentioned standardization, process management, team working, and continuous improvement. From the eight sites visited, the majority of the staff highlighted the use of performance boards and visual management as important to measure performance. The impact of using the performance boards to measure progress toward the targets was seen as significant at all sites.

I think the boards are vital and they would be the last thing I want to get rid of. There is reluctance to complete them every hour but this is vital. Someone will challenge past performance, and we can refer to the information of that time to give a reason as to why performance was good or bad. Before lean, there was no record of past performance.

Workplace assessments were also seen as important and efforts were being made by the senior managers in five sites to ensure that they would be sustained. Interestingly, three sites that were initially skeptical about workplace assessment were beginning to see the benefit of this tool.

I do checks every week. I can see the benefit of doing them. Already, things come up from the checks where you see inconsistencies between teams, so you can put that right.

Interviewees stated that they hoped problem solving would remain because staff were engaging in the process, although some staff highlighted that there was still likely to be resistance to problem solving until it was seen to be working.

Problem solving is key to staff engagement. If staff are involved meaningfully in problem solving and they can actually change what they are doing, then they feel they have some control over what they do. We need to do more on this, but we are doing a lot better than we were.

Related to this it was mentioned that team working and the way that the teams were composed would continue to develop because, apart from anything, it would be too difficult to go back to the previous ways of working due to the new processes.

Challenges and Opportunities: Adaptation of Lean in Public Services?

The HMRC evaluation, taken together with other evaluations and a wider review of literature, identified significant challenges embedded in the implementation of lean in public services (Radnor and Bucci, 2007, 2010; Radnor, 2010a, 2010b). Many of these could be described as “common” for most change management initiatives and not specific to lean as such. These included a lack of commitment from senior management, change objectives that are not aligned to customer requirements, a lack of training for staff, and a poor selection of projects for implementation (Lucey et al., 2005; Radnor et al., 2006; Antony, 2007; Oakland and Tanner,

2007). However, four challenges can be identified that are particular to lean in public services. These are:

- 1 a focus and over-reliance on lean workshops: “rapid improvement events” (RIEs);
- 2 a toolkit-based approach to lean implementation, but without an understanding of the key principles or assumptions;
- 3 the impact of public sector culture and structures, and particularly the competing professional and managerial role in relation to lean implementation;
- 4 a lack of focus on the centrality of the customer (or service user) and understanding of the service process.

Challenge 1: A Focus and Over-reliance on Lean Workshops

There are two main approaches to lean implementation in public services. These are the use of discrete workshops or events taking place over a concentrated period of time, often known as RIEs, or a comprehensive implementation or program approach across the whole public sector organization (PSO). Both of these approaches often use the same tools but are different in the breadth, depth, and regularity of their use—with RIEs being short-to-medium term in focus and the programmatic approach being committed, at least in principle, to continuous improvement.

RIEs (sometimes called “kaizen” events) are workshops involving staff from across the organization, often with multiple functions, getting together to make small and quick changes. RIEs comprise three phases, beginning with a preparation period, followed by a five-day event to identify potential lean changes, and a three to four-week follow-up period when these changes are implemented. The approach is often favored by staff as it provides an apparently fast return for effort, is visible, and does not challenge existing management control styles (Radnor and Walley, 2008). However, in isolation this approach can be problematic. RIEs tend to be more focused on short-term outcomes than longer-term developmental issues (Radnor and Walley, 2008). Spear (2005) has noted that a series of such small-scale successful lean projects can have a dramatic impact in the longer term. However, he also notes that, in order to achieve this longer-term impact, it is important that these small-scale projects are all focused around a clear long-term improvement strategy. Currently, this appears not to be case in many public service RIE events (Radnor et al., 2012).

The full program approach requires the entire PSO to be engaged in the implementation of lean. RIEs may be used to change key areas or departments but fundamentally the program is focused on developing behaviors throughout the organization which continuously improve value, flow, and performance through the use of a range of lean tools. The tools include performance boards/visual management, daily meetings, workplace audits, problem solving, and experimentation (Spear and Bowen, 1999; Holweg, 2007). The key issue in such programs is not so much the application and use of these tools. Rather it is about building a more fundamental understanding of the underlying principles of lean through their application. They are a means to an end rather than the end itself (Shah and Ward, 2007). Although HMRC did claim to be carrying out a full programmatic approach, the evaluations revealed only pockets of short-term impact around RIEs rather than a systemic embedding of the principles of lean (Radnor and Bucci, 2007, 2010).

Challenge 2: A Toolkit-based Approach to Lean Implementation

Drawing from the extant literature, typical tools and techniques associated with lean include kaizen events, process mapping, 5S, value stream mapping, and visual management (Radnor, 2010a).

Assessing these tools, Radnor (2010a) has argued that they can be used for three purposes within PSOs as part of lean implementation. These purposes are:

- 1 *Assessment*: To assess service delivery processes at organizational level, e.g. value stream mapping, process mapping.
- 2 *Improvement*: To support and improve the processes of service delivery e.g. RIEs, 5S, structured problem solving.
- 3 *Monitoring*: To measure and monitor the impact of the processes and their improvement, e.g. control charts, visual management, benchmarking, work-place audits.

As discussed above, lean implementation in the HMRC began in April 2006 across a number of sites (Radnor and Bucci, 2007). It consisted of introducing revised processes in the four key customer-facing operations at each of the sites: performance boards which reflected the team's performance, resource planning mechanisms, targets, and problem solving. These operations were supported by daily meetings (10 minutes each morning) to motivate the staff to reflect upon the achievements of the previous day, to plan the coming day's work, and to resolve any outstanding problems or issues with the lean implementation process. Other tools were also introduced to support ongoing problem solving (Radnor, 2010b).

The HMRC case study demonstrates a preoccupation in public service lean programs with the tools of lean rather than the overarching approach itself. These tools may, and often did, lead to short-term success in improving the internal efficiency of the PSOs concerned. However, rarely, if ever, did they consider the issue that is actually at the heart of true lean implementation: the centrality of the customer and customer value to organizational effectiveness. This is returned to below.

Radnor (2010a) has stressed the importance of organizational readiness factors for the implementation of lean. These factors include an understanding of the processual nature of public services delivery, an appreciation of what "value" actually comprises within public services, an external orientation for the lean process and the PSO, the active engagement of staff in process redesign, and the centrality of co-production to effective lean (Radnor, 2010a). She has argued further that an absence of focus on these factors in lean implementation in public services has resulted in a lack of sustainability in the longer term for these lean initiatives (Radnor and Bucci, 2007; Radnor, 2010a). Tools have been focused on to the exclusion of strategic intent.

Challenge 3: The Impact of Public Sector Culture and Structure

McNulty (2003) notes that across PSOs as a whole, policy is invariably focused at the senior level and undertaken by managers, whereas practice occurs at the operational level and is undertaken by professionals (such as clinicians, teachers, or social workers). He describes, further, how professional work is broken down into specialties that very rarely cross departmental boundaries and that professionals control the flow of their work. Consequently, they can resist managerial attempts to make their work more predictable, transparent, and standardized.

Within healthcare in particular, it has been argued that this challenge can cause conflict. Clinical acceptance of change initiatives proposed by service managers can be difficult because of resistance to being told how to do things, because staff are uninterested in process improvements across departments that are apparently aimed at efficiency gain alone, and because they perceive these initiatives as in conflict with their professional values (Wysocki, 2004; Cauldwell et al., 2005). This has been especially so in the case of process redesign initiatives, such as lean (Woodard, 2005). Despite this opposition, clinical buy-in is critical to the success of the initiatives, as clinicians

invariably have a strong power base within the health service and the power and credibility to convince colleagues that these initiatives can improve patient care—or not (Cauldwell et al., 2005; Massey and Williams, 2005; Guthrie, 2006).

Gulledge et al. (2002) point out that the mandates and structure of the implementation of these process improvement methodologies are based on the traditional “command and control” structures that will be found most commonly in private sector firms and that their implementation in PSOs has been predicated upon the existence of this model. Significantly, the research has revealed that many lean initiatives are actually top down, driven by policy and public spending necessities, rather than bottom up, based upon expressed need. This was found to be the case in the HMRC. These lean programs were decided upon and designed to the exclusion either of the tax officers or of legal staff, who would be responsible for their implementation, or of the service users, who were purportedly to benefit from these reform programs. Consequently, these lean initiatives became policy-, or finance-, facing rather than oriented to the benefits of the end users of services—a core element of true lean. As a consequence, both Gulledge et al. (2002) and Seddon and Caulkin (2007) have suggested that this has meant that lean can never achieve its potential in public services, precisely because it is policy- and finance-facing, rather than end-user facing. Front-line staff end up reacting to internal measures and targets rather than to external customers (i.e. their end users). This is an anathema to the true vision of lean.

Challenge 4: A Lack of Customer Focus and Understanding of the Service Process

Proudlove et al. (2008) argue that a key problem for lean in healthcare is “identifying customers and processes in a healthcare setting and the use of clear and appropriate terminology” (p. 33). Halachmi (1996) has also contended that it is hard to specify value in public service delivery because some organizational functions and procedures do not contribute directly to value, at least in the eyes of the customer (Halachmi, 1996).

Within a commercial organization, the definition and requirements of the customer are comparatively straightforward and directly impact upon turnover and profit. It therefore becomes easier to identify value and value-added activities. Within public services, though, the concept of a “customer” is not so straightforward and can be contested. It can include direct end users, unwilling or coerced users, multiple users of a service, citizens who indirectly benefit from a service, and future users of a service (Osborne et al., 2013). Moreover the terminology of “customer” or “consumer” is itself problematic, rooted as it is in the discourse of commercial and business firms. The concept of the end user is perhaps more appropriate. It does not assume the presence of a market exchange or commercial relationship—though it too suffers from some of the multiple meanings identified above. This issue of the centrality of external customer/end-user value to successful lean implementation is particularly important and is discussed further below.

Moving on to the issue of the role of “process” in successful lean implementation, Denison (1997) has described the ideal type of “process-organization” as one “wherein the primary issue of organizational design is creating value and organizing is understood not as a series of functional units or business units but as a collection of interrelated processes that create value” (p. 31). A key problem for lean in PSOs has been, in contrast, that it has focused upon internal departmental efficiency rather than external, service-user driven, value (Radnor et al., 2012).

Three brief examples will make this point. First, across HMRC, in response to the question “who is the customer?” the response was often “everyone!” When asked whether the requirements of these customers were understood the answer was invariably “yes—high-quality quick information,” but with little articulation as to what that meant in terms of standards and requirements. Therefore, there was no clear understanding either of who their end users were, or

of what level of quality and timing of information would result in better service delivery processes and more satisfied end users (Radnor and Johnston, 2013).

Second, it is a truism within healthcare that the delivery of patient care is largely a human process and consequently that the causes of variability are often difficult to quantify. Walley et al. (2006) and Seddon (2005) have both argued that there is a need to better understand how demand varies across healthcare and to remove activities that do not add value to the patient or that create bottlenecks in the system. An example of such an improvement might be transferring patients from emergency departments to theaters more quickly by removing unnecessary paperwork, reducing the number of different staff involved in the process to minimize handover time, and/or improving the physical layout of hospitals (Lister, 2006; Walley et al., 2006). This is a classic lean approach—it seeks to reduce queues by managing the variation in process. All too often, though, the public service approach has been to focus on increasing the number of public goods provided, in a situation where demand is, literally, inexhaustible. Like de-marketing (Osborne and Kinder, 2011), lean approaches seek to control either the level of demand for value and/or the processes used to deliver it.

Finally, Seddon and Brand (2008) outline two different types of demand: value demand (“what we are here to provide,” or mission-driven demand) and failure demand (“failure to do something or do something right for the customer”). They report that in local government departments in the UK, the level of failure demand can be as high as 80 percent, severely limiting the ability of such departments to deal with value, mission-driven, demand. Understanding this key distinction in types of demand is vital to PSOs. Yet the findings of the HMRC evaluations detailed above clearly indicated that the reform focus was not on how patterns of work could be changed to better meet the demands of service users but rather on how the demand could be moved around to fit with the existing work patterns of the organization. The organization was *capacity-led*, not demand-led. The result was an increase, not decrease, in failure demand. This is a failure of lean (Radnor and Bucci, 2007, 2010).

The Future of Lean Public Services

Earlier in the chapter the comparison between the private and public sector highlighted the similarities of the “bottom up” elements (i.e. the management around service delivery, human resources, etc.) whereas the “top down” perspective in terms of the complexities and structures of public services around the professional’s roles and policy making is very different to that in the private sector. These complexities were also discussed as barriers to lean implementation. This distinction between bottom up and top down could explain the focus on tools, i.e. it is easier to implement lean into the management elements that are similar to those in the private sector. Even if this is the case there is a need to go beyond just isolated implementations of RIEs and to try, even if just in management areas, to develop a culture of improvement or consider elements “beneath the waterline.”

Exploring organizational readiness, when asked participants claim to enjoy RIEs but they also often mention “frustration” at not being able to implement the changes agreed due to lack of management support, lack of time, or lack of resource which can lead to people becoming disengaged with the practice (Bateman, 2005; Radnor and Boaden, 2008). The lack of support, time, and resources themselves may be due to the lack of organizational readiness, making it difficult to encourage and implement the conditions for lean outside the RIE workshop environment. In terms of organizational readiness for lean, this includes elements such as having a process view, developing a culture focused on improvement, developing an understanding of demand and variation, of the customer, and the “value” within the process. These elements of

readiness are critical as the foundation for process improvement as they provide a basis to which the tools can be applied (Bateman and Rich, 2003; Radnor et al., 2006; Bhatia and Drew, 2007; Hines et al., 2008). Without these elements it may be easy for people to go back to the “way it was before,” for the change not to be implemented and so not sustain any improvements made (Cinite et al., 2009).

The extant literature clearly indicates that there are potential benefits from introducing lean approaches into public services delivery and that these benefits can add real value to the end users of these public services (see Radnor, 2010a, 2010b; Radnor and Johnston, 2013 for some examples across public services). First, it is true that PSOs have made some time and cost savings that have benefited the public purse. HMRC, for example, has saved £400m from the implementation of the Pacesetter initiative (National Audit Office, 2011). Arguably, though, these savings were primarily a product of addressing the prior poor design of these public services—what we have termed “picking the low hanging fruit (and windfalls!)” of public management reform (Radnor and Osborne, 2013, p. 275). This may be an important goal in its own right, but it is not the intent of lean. This intent is rather to improve the effective delivery of end outcomes to the external users of public services and to add value to their lives in doing so. To extend our metaphor, the challenge is therefore not how to pick more of the low hanging fruit, no matter how easy this may be. They are invariably the smallest and least tasty of the fruit on the tree. Rather it is to become more ambitious and seek to gather the real, substantive, harvest of public management reform.

Second, it is vital to its success to understand that lean is context dependent (Radnor et al., 2012). It derives originally from a private sector, manufacturing context (Toyota) and this context has affected, and limited, its early implementation in public services. However, it cannot be simply transferred across to a public service context, assuming that it can offer the same benefits. If this is the intent, then lean will indeed be a “failed theory” with little to offer public services beyond the correction of previous design faults. If lean is to go beyond this and to offer a genuine route to increased public service effectiveness and increased end-user value, then we need to develop a modified theory of lean suited to the public service context. The remainder of this chapter will sketch out the preliminary elements of such a theory of public service lean, based within a public service-dominant business logic.

Currently the focus of lean appears to be around the tools and not the culture. Where it is being implemented it appears to also be having significant impact. However, as argued, this could be due to the “newness” of the approach in that, by considering the process for the first time, many obvious wastes can be removed, e.g. reducing the number of forms to be filled in. This tools approach may be due to the early stage of the journey of lean within the public sector but it may also be due to the complexities within public services which mean that for lean to evolve beyond a management (to an organizational) philosophy may be more challenging.

An argument that has been presented is that much contemporary public management theory has been derived conceptually from prior “generic” management research conducted in the manufacturing rather than the services sector. This has generated a “fatal flaw” (Osborne and Brown, 2013) in public management theory that has viewed public services as manufacturing rather than as service processes—and as ones that are created by professional design and input and then delivered to the user even though the business of government is, by and large, not about delivering pre-manufactured products but to deliver services. Nor are most relationships between public service users and public service organizations characterized by a transactional or discrete nature as they are for such products (McLaughlin et al., 2009). On the contrary, the majority of “public goods” (whether provided by government, the non-profit and third sector, or the private sector) are in fact not “public products” but rather “public services” that are integrated into

people's lives. Social work, healthcare, education, economic and business support services, community development, and regeneration, for example, are all services provided by service organizations rather than concrete products, in that they are intangible, process driven, and based upon a promise of what is to be delivered. Public services can of course include concrete elements (healthcare or communications technology, for example). However, these are not "public goods" in their own right; rather they are required to support and enable the delivery of intangible and process-driven public services.

This product-dominant flaw, we argue, has persisted despite the growth of a substantive body of services management and service operations management theory that challenges many of its fundamental tenets for the management of services (Normann, 1991; Gronroos, 2007; Johnston and Clark, 2008). This *service management theory* should inform our theoretical and conceptual understanding and analysis of the management and delivery of public services.

So should public sector organizations be investing in process improvement methodologies? The answer is probably yes as evidence indicates that lean is potentially a good framework for public services as the principles give managers something to "hang on to" with simple tools and techniques to use. However, it needs to be fully understood as a philosophy and seen as more than just a policy and a set of tools. It needs to be set within a service management context and logic.

Lean in a (Public) Service-dominant Context

This service management and service-dominant body of theory has profound implications for the implementation of lean in public services. For the first time it provides a meaningful context within which to operationalize the core philosophy of lean, rather than simply applying its tools in a mechanistic and product-dominant manner. As has been discussed above, the reasons for the apparent successes of lean as a public service reform strategy have not been based within the rigorous application of lean. Rather, the successes have derived from two other sources: that the processes and systems of PSOs were poorly designed initially and/or that little attention had been given previously to the inefficiencies of existing internal organizational processes.

By focusing attention, often for the first time, on the design of processes and systems within and across departments within PSOs it has actually been comparatively "easy" to identify and remove forms of waste stemming from such poor design—the "low hanging fruit" of public services reform we discussed above. Much of these early gains have been achieved primarily through focusing on lean workshops and RIEs. Such a reduction of waste, as long as it does not undermine mission-critical activity, is an important achievement in its own right. However, by itself it can only ever be a short-term objective of lean (Ballé and Regnier, 2007; Hines et al., 2008; Radnor and Walley, 2008).

Viewed in this context, lean has to date simply been a catalyst to address the prior poor design of the public service within and across PSOs. Once waste has been removed, however, the larger issue still remains of designing public services to meet the needs of end users and to add value to their lives. This is true effectiveness. This focus on the external end users of a public service is essential to the genuine application of lean to public services. To date, though, it has been absent, with the focus being upon internal customers and internal efficiency rather than external end users and external effectiveness. This has been the fatal flaw of the implementation of lean in public services and why, to date, it has been a failed theory of public services reform. Once the implementation and application of lean in public services moves away from being solely tool based and engages in the culture and service management paradigm to build a viable and effective theory of public service-dominant lean, then it can be "fit for purpose" to underpin and to drive forward the successful reform of public services delivery in the 21st century.

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