The Role of Human Resource Departments in Lean Six Sigma initiatives

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Abstract

This paper explores one of the emerging themes from a recent Systematic Literature Review of the use of continuous improvement methodologies in the public sector over the last 17 years. The role of HRM is at the core of the critical success factors for implementation but can be bypassed by organisations due to existing bureaucracy, a failure to engage in change management or simply because the organisation seeks 'quick wins' through limited tool deployment rather than culture change. The literature is critically reviewed to summarise learning for public sector organisations and identify good practice for implementing or reinvigorating initiatives.

Keywords: Lean Six Sigma, Public Sector, Human Resources

Introduction

This paper is drawn from a systematic literature review of continuous improvement (CI) methodologies in the public sector (Rodgers & Antony, working paper) and an identified emerging theme of the role of the human resources function or department within the organisations. It is particularly focussed on the benefits and challenges to involving the HR professionals and identifies practical options for enhancing CI. The suitability of Lean and Six Sigma in the public sector remains the subject of debate (Waring & Bishop, 2010; Carter et al.,2011), however as well as further evidence to show benefits and return on investment, there is a need for evidence of holistic organisation wide improvement initiatives in the public sector (Antony et al., 2016).

While the importance of positive and enabling Human Resource Management (HRM) is at times recognised as an important pillar of a continuous improvement programme (de Koejier et al, 2014), in some cases HR is a frustration or block to successful implementation leading to HR functions being bypassed (Thirkell and Ashman, 2014). Utilising the example of healthcare, it has been suggested that the success of a continuous improvement initiative can depend on effective HRM practices (Leggat et al, 2015).

The nature of the use of Lean Six Sigma in any organisation means that successful deployment will have an impact on working practices and the jobs and roles of staff across the organisation. This can lead to concerns over work intensification (Stanton

et al, 2014) and suggestions of lack of staff empowerment (Carter et al, 2012). Managers, employees and staff associations need to work collectively to optimise benefits and make the difference that is sought, but a review of studies across different organisations shows that HR teams are often operating with different guidelines, legislative requirements and interpretations of what the organisation is trying to achieve.

Methodology

As stated the data used for analysis in this paper is drawn from a wider study of continuous improvement deployments and application in the public sector (Rodgers & Antony, working paper). The methodology for the main review explored all 1401 journals listed in the 2015 Association of Business Schools Journal Guide using keyword combinations of either; Lean, Six Sigma, Lean Six Sigma and Police, Fire, Ambulance, Health, Education, Criminal Justice, Government. The searches were made for the years 2000-2017 and identified a total of 122 relevant articles. The analysis identified a number of emerging themes including; the applicability of Lean and Six Sigma to the public sector, the lack of shared definitions and understanding of Lean within public sector organisations, the focus on quick wins over long term culture change and the role of human resources management and human resources professionals.

The level of the debate in this theme area is shown in figure 1 below with the list of journals which most frequently published articles included in the study;

Figure 1 – List of Journals most frequently publishing included articles

(Rodgers & Antony, working paper)

It can be seen that the journals most frequently publishing is those which are focussed on quality management related subjects and those which focus on specific public-sector areas such as healthcare and education. It can also be seen that the impact on HRM and related factors is a frequent research focus. While this only accounts for five of the one hundred and twenty-one papers included in the research, the analysis

identified a further twelve papers meaning that human resource functions and considerations were explicitly explored in seventeen of the one hundred and twenty-one papers, a total of 14% of the overall number of papers explored in the SLR.

The role of the HRM Department

In considering what constituted the role of HRM, the model for strategic HRM described by Torrington et al (2005) was used to examine and categorise the papers identified in this study.
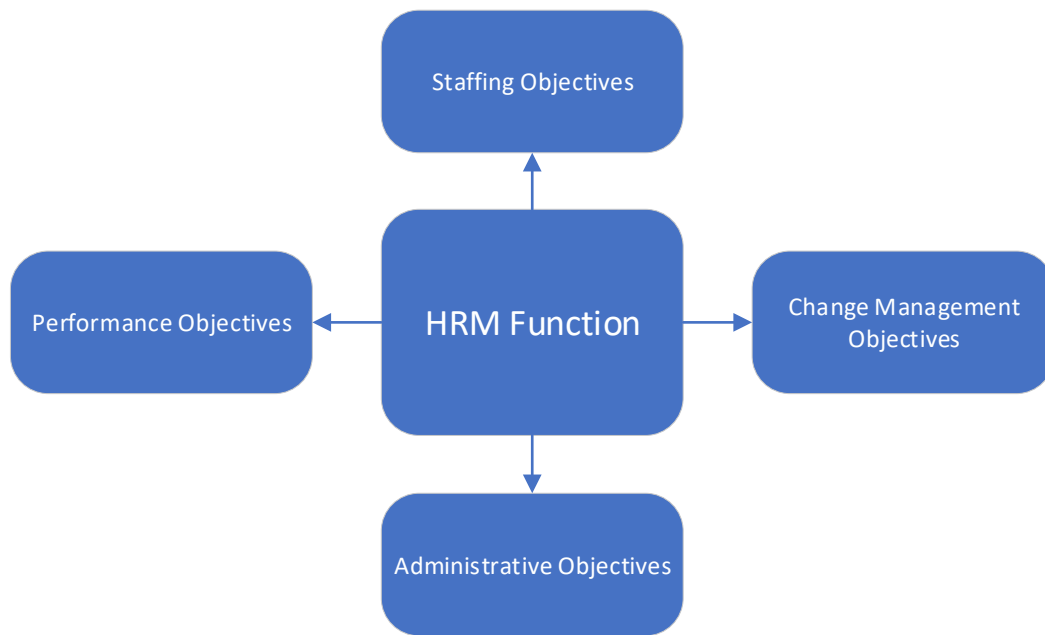

Figure 2 – Strategic Role of HRM (Torrington et al, 2005)

The objectives are further described as including the tasks;

Table 1 – Tasks to fulfil strategic HRM Objectives (adapted from Olowookere and Sang, 2016)

Objectives	Tasks
Staffing	- Recruiting the right number of staff. - Recruiting staff suited to organizational goals. - Writing up the correct contracts for staff.
Change Management	- Support staff during organizational change. - Improve the internal culture of an organization. - Employee participation in change. - Employees involved in the change process are adequately skilled and prepared.
Administrative	Employee Records.

	• Training experiences.
	• Pay and Reward.
	• Preventing Discrimination.
	• Health & Safety.
Performance	• Staff Motivation.
	• Discipline of Staff.
	• Employee Involvement.

In analysing the patterns and trends around the actual or intended role of HRM the literature has been categorised by the tasks above.

Analysis & Findings

The one hundred and twenty-one relevant papers identified in the initial SLR (Rodgers and Antony, working paper) were analysed with the purpose of identifying any emerging themes or gaps in the deployment of continuous improvement methodologies in the public sector. The 17 papers (14%) which clearly explored HRM factors were initially analysed to consider year and country of publication and public-sector business area.
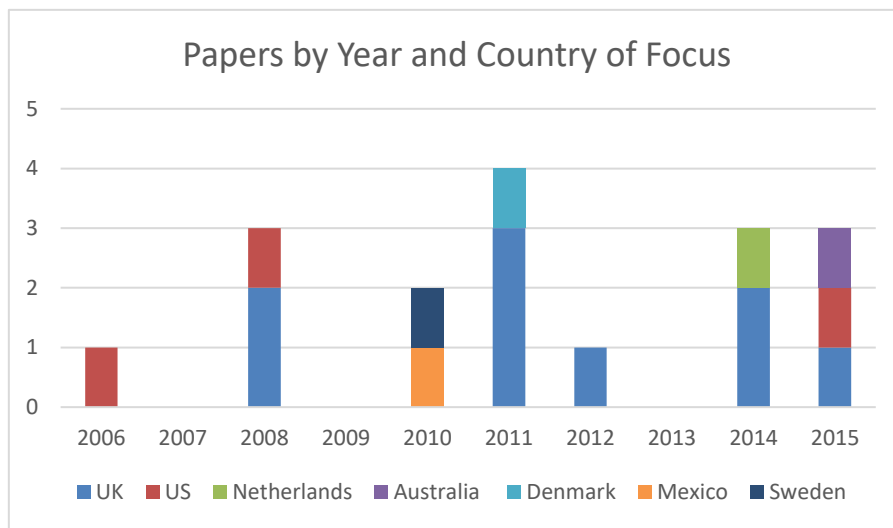

Figure 3 – Papers presented by year of publication and country of focus

As can be seen in figure 3, the seventeen papers included in this analysis were published between 2006 and 2015, nine of the papers were published with the UK being a focus with three being from the US and one each from Netherlands, Australia, Denmark, Mexico and Sweden. In total papers from 7 countries are included in this analysis. For additional context the public-sector area of business is also presented at Figure 4 and is broken down into Health, Education, Local Government (regional, state or city functions), Central Government (National or Federal functions) and Public

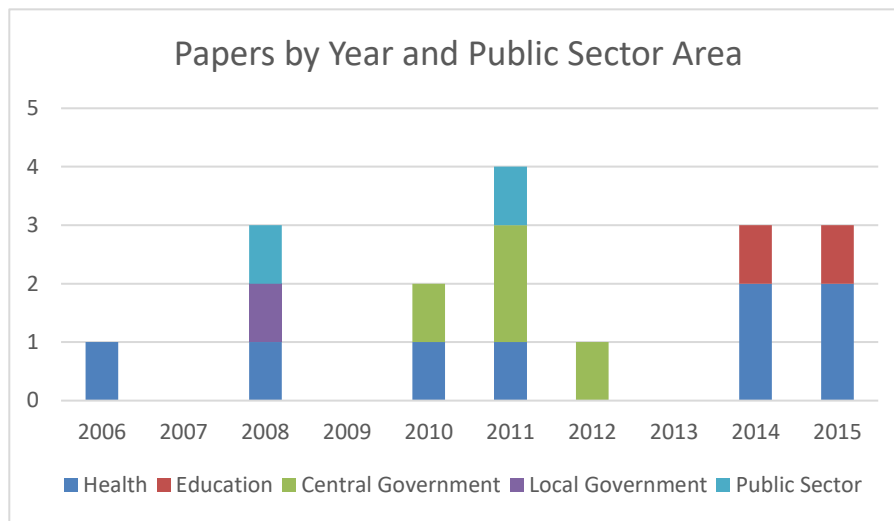Sector (papers which either discuss public sector in general or cover multiple facets of the public sector).

Figure 4 – Papers presented by year of publication and public-sector area

Eight of the seventeen papers shown in figure 4 are focused on healthcare whereas 4 relate to central government in particular the application of CI in recruitment processes for a Mexican central government department (Suarez-Barraza and Ramis-Pujol, 2010) as well as the deployment of CI in Her Majesties Revenue and Customs in the UK (Carter et al., 2011a; Carter et al., 2011b; Carter et al., 2012). This deployment has been a focal point in the literature for the assessed negative impact of CI on Staff in terms of wellbeing, satisfaction and work intensification.

The seventeen papers which assisted in identifying the emerging theme about the role of HRM in Lean Six Sigma and Continuous Improvement initiatives were further analysed by issue or finding to synthesise learning for public sector organisations. The results are shown in table two below;

Table 2 – Summary of HRM related Issues and Findings

Issue or Finding	Relevant Paper(s)	HRM Objective
Employee Involvement	(Carter et al, 2011a; Carter et al. 2012; de Koejier et al. 2014; Lifvergren et al, 2010; Lodge & Bamford, 2008; McCann et al, 2015; Papadopoulos et al, 2011; Radnor & Walley, 2008; Scorsone, 2008)	Performance Change Management
Work Intensification	(Carter et al, 2011b; Carter et al, 2012; McCann et al, 2015; Lindsay et al, 2014)	Staffing Administrative Performance

HRM Involvement	(de Koejier et al. 2014; Leggat et al, 2015; Papadopoulos et al, 2011; Suarez-Barraza & Ramis-Pujol, 2010; Thirkell & Ashman, 2014)	Change Management
Employee Morale	(Lindsay et al, 2014; Scorsone, 2008)	Performance
Employee Wellbeing	(Carter et al, 2011a; Lummus, 2006; Pederson & Huniche, 2011)	Performance Administrative
Training, Development & Awareness	(Leggat et al, 2015; Lifvergren et al, 2010; Lindsay et al, 2014; Waterbury, 2015)	Change Management Administrative

Employee Involvement

It is generally accepted that employee participation and empowerment is a critical success factor to successful Lean Six Sigma implementation in the public sector (Fryer et al, 2007), this is shown as being carried through in healthcare settings in Sweden and the Netherlands (Lifvergren at el, 2010; de Koeijer et al, 2014) but is less evidenced in healthcare in the UK (Lodge & Bamford, 2010; Papadopoulos et al, 2011; McCann et al, 2015) in addition to this, the lack of employee involvement in the Lean deployment within Her Majesty's Revenue and Customs (HMRC) in the UK has been the focus of a series of highly critical articles regarding lack of employee involvement (Carter et al, 2011a; Carter et al. 2012).

What is clear from the ongoing criticism is that external consultants and/or small internal 'specialist' teams have driven some of the Lean Six Sigma deployments and have not engaged HR within the respective organisations nor the wider employees. Where this has been allowed to happen or driven by the organisational strategy, the question remains, how have HR sought to fulfil their strategic functions. The learning point in this regard is the early discussion of the intention to launch or relaunch an continuous improvement initiative combined with familiarisation of both the initiative and the methodology and taking the time to obtain feedback about how employees view the approach and how they both want to and should be involved.

HRM Involvement

In many of the papers reviewed, HR functions are clearly discussed without referencing the actual HR department or function in the organisation and its importance. Leggat et al (2015) explored the application of Lean in Australian Hospitals and suggested that many of the benefits achieved through the Lean programme could have been achieved through good HRM in participation and feedback and training and development. While not necessarily agreeing that the methodological approach and the applied tools and techniques did not contribute to outcomes, the point is again made that the HRM is a golden thread running through a continuous improvement programme.

In their exploration of HRM in Lean Six Sigma deployments, de Koeijer et al (2014) identify the HR enabling practices for a successful initiative as: Training and Development, Performance appraisal and rewards, Team working and autonomy, Participation and job design, Recruitment and Selection, Employment Security, and Worklife balance. These stated, again there is a gap in the research between what HRM practices are effective and important to an initiative and what role should HR play in the initiative. Should the HR function lead the initiative, should they be integrated as part of the initiative or should they advise the initiative? One clear issue is where HR practices are not aligned to a continuous improvement initiative and are seen as slow or bureaucratic and cumbersome this can impact on outcomes (Suarez-Barraza and Ramis-Pujol, 2010) a further misalignment can be seen to be where continuous improvement initiatives do not consider holistic methodologies and rather only focus on a narrow number of tools such as Rapid Improvement Events (RIE) then HR can be seen as unnecessary as culture change is not considered part of the initiative (Thirkell and Ashman, 2014).

Work Intensification and Employee Wellbeing

These two sections are considered together as different sides of the same coin. A challenge in implementing continuous improvement through Lean Six Sigma in the public sector are the very real budget challenges that have existed over the past 10 years in particular. This has led to a culture of 'quick wins' and focus on cost reduction rather than value to the customer. This has lead to a significant impact on the employee in certain organisations through work intensification (Carter et al., 2011b; McCann et al, 2015), in these case examples there are patterns of external pressures to save money, the use of consultants and the lack of employee engagement.

The consideration in these cases is how did HRM interact with the initiatives, ensuring employees were prepared for change, engaged, empowered and involved in change and of course given their role in writing up contracts and supporting employee wellbeing, how did they reconcile these functions?

The reported negative impact on staff through a focus on reducing expenditure at the cost of staff is however only part of the story and it is important to note that there are examples of Lean Six Sigma projects in the public sector whose success criteria was to reduce stress on staff and improve wellbeing, while also seeking to deliver improved outcomes for customers (Lummus, 2006; Pederson & Huniche, 2011).

Employee Morale

As with many HR functions, there are links between services and processes and the literature review evidences a strong link between examples where employee engagement and empowerment were strong and benefits to employee morale. This is shown in a case study of LSS initiative in city government in the US (Scorsone, 2008) and in healthcare in the UK (Lindsay et al., 2014).

Training & Development and Awareness

There can be a tendency to consider this area as being focussed on formal qualifications in LSS but the importance of broader staff awareness and understanding

(Lifvergren et al., 2010, Waterbury, 2015) of not only introductory or simple tools and techniques but also the purpose of the initiative, the strategy and the organisational ethics and values that go with the initiative. If the organisation is genuinely seeking to implement LSS as part of its culture and its strategic focus on value to the customer or service user, then the question also arises of who is responsible for strategically ensuring that continuous improvement is part of a themed 'golden thread' that runs through the organisations training and development programme?

Comparison to other Sectors

The consideration of the role of HRM in continuous improvement is of course not exclusive to the public sector. Jorgenson et al. (2008) sought to develop a framework for the supporting HRM functions for a continuous improvement initiative more broadly. They considered that HRM practices at different phases of a CI initiative would enhance the sustainability of the initiative and improve performance but also noted that there were gaps in engaging HRM with CI initiatives where HR professionals reported being missed out or not involved in the development stages in particular.

Practical Considerations for new and developing initiatives

The literature presents a pattern or recurring issues in CI initiatives which can and should be addressed through more integrated HRM. The key takeaways from this analysis include;

1. The CI strategy should be integrated into the business plan and be reflective of the company values. There needs to be a shared strategic understanding of what a CI initiative is.

2. HRM should be involved in the planning and development of CI initiatives in an integral way

3. HR policies and practices must be fit for purpose and support the planned initiative, if they are bureaucratic and slow down improvements, there is a risk will bypass them or ignore them

4. Employee morale, empowerment and engagement are crucial to successful CI implementation, what is their status prior to the CI initiative, can the organisation carry out a health check to ensure they are properly prepared to make the initiative a sustainable success

5. Training, development and awareness is not simply about ensuring there are enough Black, Green and Yellow belts in the organisation. Continuous improvement should be a golden thread through, staff induction, management training, customer service, specialist subjects, appraisal, reward and recognition and so on.

Conclusion

There needs to be an internal honesty with any organisation when implementing a continuous improvement initiative and whether they are seeking to embed a culture change across the organisation or simply seeking to reduce costs in quick time. If the former, good practice involves almost every function of HRM to maximise involvement

and sustainability and as such the organisational HR department or even single responsible person should be an integral part of the initiative to maximise success and minimise the potential negative impact on people that can be seen in some initiative in the public sector.

The authors recognise the limitations of the small number of papers used and the fact that this theme emerged from different research and was not the original focus. Accordingly, the next steps are to undertake a wider literature review to better understand the scale of the challenge before undertaking qualitative research with CI and HR professionals.

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