Making a Continuous Improvement Culture Part of Your Vision 2020

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Abstract

The last twenty years has seen a consistent application of Continuous Improvement (CI) by practitioners and a series of academic articles promoting the approach as well as identifying its possible weaknesses. The vast majority of these have been within a manufacturing context. However, perhaps strangely there has been a lack of attention to the possibility of applying CI to the very academic institutions that these articles stem from. This paper seeks to make a tentative first step in doing so.

Implementing Lean Within a University

The Cardiff University is in the process of translating the “lean value system” (Hines et al. 2004) to an academic environment. Work began within the development of a Lean Implementation approach that sought to provide a more concrete, holistic methodology to transformations within organisations.

![Lean Iceberg Model](image)

Fig. 1. The Lean Iceberg Model (Hines et al, 2008)

It is useful conceptually to see this as a Lean Iceberg model (Fig. 1). Within the model, technology, tools and techniques that affect processes are the visible aspect of a lean enterprise. However, the vast majority of the ice structure lies beneath the surface, invisible to outside observers. It is this enabling, anchoring mass which makes the Iceberg the powerfully strong force to be reckoned with.
Realising that the enabling elements of the iceberg are essential to a successful, sustainable transformation is only part of the initiating mindset required by a lean implementation team. There also needs to be an appreciation of the right mix of “above water” and “below water” activities. It is also important to realise that the iceberg’s components are all interdependent. For example, effective strategy and alignment can only be delivered through strong leadership, which in turn, will only be successfully realised within a positive organisational culture that is receptive to learning and improvement.

In a professional service environment it is more appropriate to focus more broadly and initially, especially on muri, in order to engage staff in a lean transformation. The reason for this is that large parts of the activity within a university are of a support nature and hence would, within a traditional lean thinking approach, be regarded as necessary-but-non-value-adding or non-value-adding.

Our Chosen Approach

The first phase of the implementation plan addressed the most critical aspect of a lean transformation, ensuring that the strategic mission of the organisation is clearly defined, concise and excellently communicated to all (1 in Fig. 2). Clear gaps which exist within the strategic structure of the University have been identified in our initial work. It will be important to address these gaps in order to secure the success of the Lean Project itself.

The second phase of the Lean University project concentrates on understanding and improving three key processes. These processes address the University’s core activities, the procurement procedures in place to deliver courses and research (2 in Fig 2), the provision of courses (3 in Fig. 2) and the provision of research projects (4 in Fig 2). These themes involve all Schools within the University and aspects of the current process are owned by a variety of Directorates, such as Public Relations, Finance and HR. The themes chosen are true “value streams” and as such, should prove to be an excellent opportunity to develop the first lean “platforms” (Bateman et al, 2008).

It was originally intended to start the Lean University project in a very low key way, to spend the first year trying new techniques and learning about the most appropriate approach. However, news of the lean project began to spread across the organisation. Some viewed the project with suspicion, fearful of job losses or perhaps suffering from ‘project fatigue’. Others however, were excited about the prospect of improved processes which added greater value. It was very important to act on the enthusiasm shown from several individuals and organisations. Consequently, a number of smaller ‘point kaizen’ Continuous Improvement projects (No 5. Fig. 2) have been initiated.

Cardiff University has also started two other projects. The “Modern Working Environment” is a large scale project designed to revolutionise the University’s technology infrastructure to facilitate better processes. The “Positive Working Environment” project has been created to ensure that the organisation is healthy, happy and enterprising. The Lean University project is working closely with the Modern and Positive Working Environment projects to ensure that there is minimal duplication of effort and also that each element of the Lean University Implementation model is addressed.
Conclusions
Work within the project suggests that there is much potential to improve customer value and eliminate waste within the University. Whilst there are many staff members who have welcomed the project and shown enthusiasm towards the various project themes, it is increasingly evident that the academic environment is less familiar to change than many conventional lean environments.

References
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