

Managing for the Future in Higher Education: A Case Study on “Lean” Implementation within a UK Business School

Harry Barton, Baback Yazdani

(Nottingham Business School, Nottingham Trent University, UK)

Abstract: In an increasingly global and competitive market place, Higher Education (HE) institutions across the globe are becoming more “managerial” with an emphasis being placed on value for money and the improvement of student (customer) satisfaction. In the United Kingdom (UK) this is due to changes in government policy with reference to funding mechanisms across the sector which has seen a reduction in financial support to UK higher education institutions. As a result of such changes students now assume responsibility for meeting a significant part of the fees associated with the courses that they are undertaking. As a result an increasingly “market focused” and customer driven level of educational provision is being demanded by the key stakeholders namely government, employers and potential students. This has encouraged a more dynamic approach to the management of education within many institutions with new approaches to the delivery of education and management of staff being explored. Given such a context this paper investigates the implementation of a “lean thinking” approach to managing a UK Business School. This strategic development is intended to improve the overall performance of the organisation against an agreed set of metrics. Such metrics are intended to drive forward the School’s ability to achieve one or more global accreditations which are increasingly being used as global benchmarks within an increasingly competitive market for both national and international students and research funding. The overall lean operating system covers all the fundamental elements of a system encompassing: structure, management and leadership, processes, tools and technologies, and above all seeks to engage staff.

Key words: higher education; lean; management

JEL code: I23

1. Introduction

For business schools in the United Kingdom (UK) and other European countries, issues such as the influence of globalization and innovation, the value impact of research and the importance of clear perspectives about corporate social responsibility and leadership are fundamental to competitive success (K. J. Tullis & J. P. Camey, 2007). For British business schools in particular, the impetus to compete internationally is a result of the change in government policy concerning the status of foreign students, the need to undertake collaborative research, the

Harry Barton, Professor of Human Resource Management and Professional Practice, Nottingham Business School, Nottingham Trent University; research areas: lean servitisation, international HRM, developments in higher education and police, policy and management. E-mail: Harry.barton@ntu.ac.uk.

Baback Yazdani, Professor and Dean, Nottingham Business School, Nottingham Trent University; research areas: lean management and production, automotive product design and manufacturing, sustainability. E-mail: Baback.Yazdani@ntu.ac.uk.

search for additional funding as a consequence of reduced funding from central government and the pursuit of excellence (S. Ahola, 2005). Future competitive strategies within the Business School sector are likely to result in the increased use of global benchmarks to assess the performance of institutions. Already a key driver for business schools in mapping their strategic positions within the competitive environment has been accreditation particularly with respect to internationalization of programs of study as part of EFMD-EQUIS and AACSB accreditation bodies. Clearly, learning from peers and cooperating with them are not only essential in research but for institutional strategy, incorporating teaching and learning (S. Noorda, 2011).

2. Literature Review

Business schools constitute a business sector in their own right and this business is internationalizing and becoming increasingly competitive such that higher education is now a global enterprise (S. Dameron & T. Durand, 2009). Within this context European business schools have responded to such competitive pressures by increasing their quality metrics with more schools seeking recognition through one or more of the recognized, global, accreditation bodies (EQUIS, AACSB, AMBA). Such accreditations are anticipated to demonstrate a certain quality threshold with an anticipated improvement in an institutions global ranking. In no other field have international rankings and accreditation been more widely and seriously introduced and practiced (S. Noorda, 2011).

A net consequence of this particular focus by European Business Schools has been that for many international graduate business students the destination of choice for study is today Europe compared to the United States ten decades ago (A. Chisholm, 2011). Within Europe, Britain has become key destinations for international students, although the reasons for this change are varied an important factor is that many European schools offer programmes that students can complete in less time and therefore, for less cost (A. Chisholm, 2011). This is especially the case for full time MBA programmes and specialist Master programmes which usually take one year.

These trends are positive for European business schools as international students, particularly those from China and India, make decisions on which country to study in primarily on their perceptions of the overall quality of the country's education institutions (R. Lambert, 2003). Solid and serious rankings help students to make their choices and are key mechanisms for benchmarking (S. Noorda, 2011).

Furthermore, policies within the European Union relating to international study and cross-border higher education initiatives have aided the competitive stance of European higher education institutions. Such cross border growth in Europe has been aided by The European Commission for Education and Training committing to the standardization of national systems within Europe and the European Commission's support for the Bologna Process (S. Ahola, 2005; L. Barton et al., 2011). The aim of standardization has been to promote greater transparency in qualification structure amongst European higher education institutions allowing for increased mobility of students and faculty. Such policies along with the increased popularity of European business schools, has led to an intensification in competition between Schools across both national and international dimensions.

2.1 Initiating “Lean” within UK Higher Education

Given this background, over the last few years there have been, an increasing interest in the application of business process improvement methodologies and techniques as a mechanism for improving the operational efficiency and competitive position of some UK Higher Education Institutions. This in itself mirrors a growing interest in developing or adopting new approaches to management across the United Kingdom (UK) public

services. Lean, Business Process Reengineering (BPR) and Process Improvement Techniques such as Total Quality Management (TQM), Kaizen and Benchmarking have all been advocated as means of enabling organizations to change in a way that makes their business processes responsive to changes in both economic and social conditions.

Such challenges therefore provide significant opportunities for researchers in the business field of operations management to reflect on current strategic change initiatives across the Higher Education sector and to engage with incremental operational change opportunities within Universities (H. Thomas & E. Cornuel, 2011). The development of this “lean thinking” across the public sector has an emerging academic literature (Z. Radnor & P. Walley, 2008), with substantial operational and organizational benefits seen to materialise from adoption of a “lean thinking” approach (T. Papadopolous & Y. Merali, 2008). Although to date the most cited examples of lean application have been within the health services (P. Provonost & E. Vohr, 2010; Z. Radnor & G. Bucci, 2011). There is growing evidence that in other public service environments such as the police service improvements in service performance, improved processing times and achieving “better value for money” have resulted from such lean interventions (R. Flanagan, 2008; J. Berry, 2009; L. Barton & H. Barton, 2011).

3. The Research Case Study

Nottingham Business School (NBS) embarked on the preparation and implementation of “lean” during the latter part of 2007. The drivers to implement “lean” at NBS were multi- dimensional but reflected a recognition of the need to introduce a more “business” orientated approach to managing the School. With the increasing demand for business and management education in the UK and globally, NBS set itself the strategy to differentiate itself from the other 110+ business schools in the UK. The intention is to be internationally recognised for excellence with an evolving mission to transform business and industry through creation, development, application and diffusion of cutting edge business and management knowledge and through the quality and readiness of the people it developed and educated.

The overall drivers can be summarised as below:

- (1) The challenges facing the university sector in the UK due to the changing demographic and funding environment as reported by successive government sponsored reports such as The Lambert Report (R. Lambert, 2003) and then Leitch Review (2006) and later the Browne report (Browne, 2010).
- (2) Intensification of competition amongst business school in the UK and indeed internationally.
- (3) NBS’ need for transformational *and* sustainable ways to implement change to speed up its development.
- (4) Creating reality and not simply rhetoric as to a business school which is run both effectively and efficiently.

3.1 The NBS Approach to Lean implementation

The NBS approach has been based on a previously successful introduction and implementation of Lean in the Jaguar/Land Rover (JLR) product development system. The NBS approach was deliberately chosen to be gradual and step by step. This approach was chosen as the best way to create a sustainable Lean as the operating system that will be delivering improvements at all times. The overall NBS Lean Operating System covers all the fundamental elements of a system encompassing: Structure, Management and Leadership, Processes, Tools and Technologies, and above all engages staff. This was seen as more advantageous than a tools and methods driven way of introducing Lean, which can often fade away after a number of business processes have been improved.

3.2 Details of Lean at NBS

As previously indicated the challenge facing UK business schools is to innovate and respond to an increasingly competitive internal and external market for their educational services. NBS has recognised this and identifies that alongside the assistance provided by accreditation agencies in terms of providing guidance to achieving certain quality control benchmarks that relate to the standing of fully accredited (AACSB, EQUIS, AMBA) business schools. There is an opportunity to revitalise and re-orientate many of the internal operating systems that are required to achieve such accreditation status and NBS as adopted a “lean” variant approach.

The chronological account of the main aspects of the implementation of Lean Operating System is presented below. A sequence of developments were designed and rolled out to agree a common vision and agenda manifest in a “Blue Sky Vision” and Balance Scorecard.

A number of workshops amongst the leadership team culminated in an agreed Blue Sky document for 2008-2013. This Blue Sky vision approach is commonly undertaken within the manufacturing arena and is increasingly achieving recognition within higher education, although at this stage its wide scale implementation has not occurred although there are interesting examples of its adoption in a variety of forms across a number of UK HE institutions (H. Thomas & E. Cornuel, 2011).

The NBS “Blue Sky” Vision was organised in 4 Columns of Quality, Delivery & Volume, Income & Cost and finally People. Under each column the 5 year aims of the main activities of Education, Research and Intervention were articulated in terms of improved operational metrics, as shown in Table 1. Under each Column the main targets of Quality, Delivery & Volume, Income & Cost, and People were also agreed and stated (Table 2).

Table 1 Key Process Linkages

Where do we want to be?	Where are we and future targets?	A3s Projects to effect change?	Weekly monitoring at NBS School Executive	Update, update.
NBS Blue Sky Vision>	NBS Balanced Scorecard>	NBS Deployment Actions>	NBS Master Schedule>	Status Change to NBS Vision and Balanced Scorecard

Table 2 NBS Blue Sky 2012 Issued Jan 2012

	Education			Research		Business Engagement	
	UG	MSc	MBA	PhD	Outputs	Exec. Education	Corp. Relations
Quality	Metrics>			Metrics>		Metrics>	
Quantity	Metrics>			Metrics>		Metrics>	
People	Metrics>			Metrics>		Metrics>	
Money	Metrics>			Metrics>		Metrics>	

Each metric was then converted into annual targets and expressed in a balance scorecard. It was important to ensure that the scorecard is truly balanced and achievable and therefore the impact of each individual metric on the rest of the chart was carefully analysed and debated. The next stage was then to develop the various projects (A3s) that were developed to effect change. Each A3 is led by a project leader who draws on the resources that are necessary to achieve a satisfactory conclusion to the project. These are regularly updated and fed into the NBS Master Schedule.

Initially two members of the leadership team were assigned to each column and each was responsible for a set of deployment actions to achieve the target results for the following year. It was important that the Metrics and individual deployment actions had a member of the leadership team developing and delivering them. Therefore some 40 projects (deployment actions) expressed as an A3 were developed by the NBS leadership team.

The process of review of the A3s was therefore possible to start. The entire process of developing and agreeing overall mission, aim and vision of school and how they translate into a Blue Sky document and Scorecard took some 8 months in total taking NBS to the beginning of 2008. It was then possible to start the process of developing the A3s and then the review of A3s in a cadence could be started. This process was aided and facilitated by an NBS Visiting Fellow whom has had considerable expertise in implementation and running of Ford’s Leanest plant in the world as well as an Lean Immersion Day at JLR’s Lean Learning Academy at the Halewood Manufacturing plant. The relationship between Blue Sky, Scorecard, A3s and the overall Master Schedule is shown in (Table 1).

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In order to succeed with the Blue Skies Vision the NBSs leadership team (School Executive) recognised that without the understanding and “buy in” from the rest of the staff within NBS then the implementation plan would have little chance of success. By the end of 2010 therefore a significant number of NBS staff had received training in Lean and were positively contributing to a significant number of projects arising from the A3s.

Over the last 4 years the original template and Blue Skies Vision has undertaken a number of iterations as would be expected in such a dynamic process. As of July 2011 the original scorecard has been revised into 4 core areas of business namely education, research, executive education & engagement and external engagement.

As previously indicated each key business area has identified “champions” and specific A3s with project plans and performance targets, Each key business area is routinely analysed on a monthly rotation basis where the lead project officer reports directly to the School Executive and reports on progress of the A3s.

To illustrate the dynamic nature of the process the latest iteration (2012) of the NBS Blue Sky Vision (2012-15) the key areas of business have been redefined and are now classified as Education, Research and Business Engagement. This is seen more appropriate as the Business School’s vision is to become one of the UK’s leading business focused business schools (Table 2). Within each of these key areas of business there is an identified “champion” who has responsibility for updating the A3s and ensuring that the metrics associated with each of the projects are updated. Clearly the long term nature of the initiative demands a level of regularisation in terms of meetings and the cadence continues on a weekly cycle which in effect ensures that each area of business is reviewed on a monthly basis.

4. Discussion and Conclusions

For its part NBS has adopted a variant form of lean that suits its strategic objectives. The usefulness of the project lies to a large extent in its transparency and clear levels of reporting and ownership of individual projects. To date the organisation has moved closer towards its objective of creating a business school that has the future potential to stand the scrutiny of external validation panels. The engagement process with all staff could however be improved however is to a large extent predicated on the current dynamics of the higher education system in the UK which is undergoing substantial transformation and by implication facing substantial challenges.

Clearly the need to pursue quality and to maintain an effective control of the financial management of all Higher Education establishments is a clear strategic priority for the current UK government (2012). For its own

part NBS recognised the need for a new forward thinking and innovative approach to delivering its services back in 2007. Since then it has engaged in a determined effort to rationalise a particular approach to lean implementation within the Higher Education sector. The nature of the delivery is one of constant evolution and one that has at its core value the delivery of excellence with its staff being a central focus of its delivery. There is recognition that only through the commitment and personal professional development of its staff can all the objectives of the Blue Skies mission be achieved. This is one of the conclusions drawn from an analysis of lean implementation within UK business schools and universities (H. Thomas & E. Cornuel, 2011).

Maintaining staff engagement with the ongoing process will have a major impact on the success of this “lean” initiative as evidence suggests that effective “lean” implementation is predicated on the construct of people, notably “front line staff”, to make it happen. Such concerns are emphasised in other public sector organisations such as the police (Berry, 2009, p. 11) who identifies both the cost and “danger that (police) forces will seek to apply a few ‘lean’ tools and techniques to produce impressive short-term results, instead of seeking sustainable, continuous improvement and a true cultural shift.” Further, developing a culture that creates the involvement of everyone in the organization is critical for the implementation of the lean philosophy (Z. Radnor & G. Bucci, 2011).

This conclusion may begin to explain why not all lean implementation initiatives have led to such positive outcomes. T. R. Browning and R. D. Heath (2009) argue that key limitations lie in the fact that the impact of environmental context or organizational contingencies can affect the relationship between lean practices and cost reduction. This suggests that regardless of establishing *what* lean is, it remains important to establish *how* best to become lean in various contexts (T. R. Browning & R. D. Heath, 2009). As a consequence the reality maybe that in the higher education context the adoption of some of the principles of “lean” may prove useful within a broader framework of progressive operational management.

This has consequences for the impact of operational research within organizations such as university business schools. Given the complexities of higher education it is unlikely that even progressive and innovative developments in operational research will solve all the complexities of increasingly global operations. Success in this respect is more likely to arise from a blended, multi-disciplinary exchange of ideas than from a single discipline of “Operations Management”.

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