

Too effective to ignore?

Can Lean Six Sigma techniques help to reduce waste?

Nick Moore looks at charities' experiences.

IT SEEMS CLEAR from pressures on funding, increased public scrutiny and an uncertain political landscape that the UK charity sector cannot proceed on the basis of “business as usual” for much longer. It needs to operate more professionally, while simultaneously delivering more, higher quality services with fewer resources.

Against this backdrop I decided to use the dissertation towards my MA in Charity Management at St Mary’s University, Twickenham, to ascertain whether or not the adoption of Lean Six Sigma methodologies for process improvement could be applied to charities. Could they help charities reduce waste and cost, while improving the quality of service they provide to beneficiaries?

What is Lean Six Sigma?

Lean production principles were originally developed by the car manufacturer Toyota through the 1950s as Japan sought to re-build after the war. Toyota’s strategy was to develop an approach that combined the small scale, low inventory, custom-made methods of craft industries with the cost-conscious disciplines and output rate of mass production.

A key concept is the Japanese word *muda* (meaning “waste”), defined as any human activity which absorbs resources but creates no value, where value must be measured only in terms of the ultimate customer. “Leanness” is seen as the antidote to *muda*, with a lean approach applying to the whole of any enterprise, not just production.

Six Sigma is a term relating to standard deviations of error and

describes a set of techniques designed to measure and remove variations in any process leading to zero defects. It was originally developed by Motorola in the mid-1980s, but popularised by General Electric, which attributed billions of dollars of annual savings to putting it at the heart of its manufacturing strategy during the 1990s.

“Clic Sargent hit its target of £1m per annum savings within a two-year timeframe”

Organisations have increasingly combined the two, leading to the term Lean Six Sigma, where the disciplines complement and reinforce each other, enabling organisations to maximise quality,

Key principles of Lean Six Sigma

- Focus on the customer;
- Identify and understand how the work gets done;
- Manage, improve and smooth the process flow;
- Remove non-value-adding steps and waste;
- Manage by fact and reduce variation;
- Involve and equip the people in the process;
- Undertake improvement activity in a systematic way.

Source: *Lean Six Sigma for Dummies*, Morgan and Brenig-Jones

while reducing time and minimising cost (see box).

Use by charities

Although there is very little academic material on the use of Lean Six Sigma within charities, a variety of

Combining Lean and Six Sigma

Lean

- Removes waste
- Increases speed
- Removes non-value-added process steps
- Fixes connections between process steps
- Focuses on the customer

Speed

Better delivery

Better quality

Six Sigma

- Reduces variation
- Improves quality
- Reduces variation at each remaining step
- Optimises remaining process steps
- Focuses on the customer

Accuracy

Satisfied employees

Satisfied customers

Source: Progressive Edge ERP software

examples were discovered during the course of my research. Global relief, development and advocacy agency World Vision International used a range of these tools to reduce HR and procurement costs within its East Africa team by around \$1m per annum. UK charity Clic Sargent hit its target of £1m per annum savings within a two-year timeframe. And various US service providers ranging from operating theatres to social housing providers can demonstrate radical increases in services provided within fixed budgets; bringing benefits such as reduced waiting times and better service.

Guide Dogs and RNLI have both embarked on wide-ranging programmes across their operations; reflecting their commitment to changed approaches with clear statements of purpose on their websites. And charitable activities ranging from soup kitchens to rebuilding houses after Hurricane Katrina can point to massive improvements in service output and quality from using Lean Six Sigma.

Motivations

All but one of those that completed my questionnaire and are using Lean Six Sigma cited the need to gain greater output from the same level of resources and/or to demonstrate value for money for donors/funders. Clic Sargent's programme was launched in order to avoid reducing services in response to a £1m funding shortfall.

Although Guide Dogs does face challenges regarding fundraising, its motivation is releasing capacity through the reduction of waste, so that more people with sight loss can be served with the same resources. All of its initial work has been undertaken within the "mobility services" teams that account for 80 per cent of the charity's staff and

cost, and represent the key link with people supported by the charity.

At the Church of England Pensions Board, the prime motivation for trying elements of Lean Six Sigma has been the desire to ensure that the design and delivery of services meets customers' needs – whether the organisation is making changes to existing processes or designing new ones. However, Linda Ferguson, director of customer insight & strategy, suggested that based on her experience of change management, unless organisations are facing major change, the introduction of process improvement methodologies can be challenging.

“There are often difficulties associated with "hard" performance measures”

Challenges

Lack of awareness

Despite the examples above, there appears to be a generally low exposure of the charity sector to Lean Six Sigma methodologies. Many of the influential players identified during this project gained their knowledge and enthusiasm from earlier careers in manufacturing or the public sector.

In the USA, the situation has been helped by Toyota establishing Toyota Production System Support Center Inc, which exists to provide training, mentoring and advice to not-for-profit organisations. This consists of 15 full-time advisers who execute approximately fifty improvement projects annually.

Gordon Smith, head of business improvement at Guide Dogs, was introduced to lean Six Sigma by an automotive supplier. He invited one of their experts to visit guide dog breeding/training activities and

examine them as a specific process, describing the resultant presentation as “mind-blowing”.

The need to tailor Lean Six Sigma to each application

My research showed that a number of charities do not label their process improvement programmes as Lean or Six Sigma. Clic Sargent developed its own improvement tools based on Lean Six Sigma principles, but implemented them under the “better by design” banner. Although Guide Dogs is very open about the roots of its process improvement work, it has worked hard to contextualise it to avoid staff resistance on the basis that they “do not build cars”.

A recurring theme was the need to stress improvements to the way in which beneficiaries could be served, because that fitted with the predominantly values-based approach of managers and staff.

There are often difficulties associated with “hard” performance measures in not-for-profits because the impact on beneficiaries may themselves be “soft” – measuring quality of life being difficult, for example. It was for this reason that senior managers at youth charity the King's Foundation decided not to utilise Lean Six Sigma after holding a day-long workshop exploring it. The consultant that facilitated the day had talked extensively from a manufacturing perspective, and the way in which “waste” was defined appeared to contradict the high value that the charity places on the time spent with its beneficiaries.

This raises another potential barrier to the use of Lean Six Sigma – defining “the customer”. For most charities this is far more complex than for commercial organisations. When providing services under contract, for example, the

commissioning body is paying, but it is individual service users, or maybe a parent or guardian, that can judge whether or not their needs are being met. Who is the customer in this case?

Within Action for Children, Alan Crawford identified that this complexity needed to be addressed but was not insurmountable. One Lean Six Sigma tool is the concept of the “customer journey”, and he suggests that charities should be able to consider, for example, the “beneficiary journey” and the “donor/funder journey”, analysing each separately before devising processes that satisfy the demands of both. Such a level of nuance is not unusual when analysing the effectiveness of charities’ activities, and arguably the ability to break down processes into their component parts using Lean Six Sigma makes it particularly suitable to charity applications.

In all of the cases found in my research, this has been overcome; generally by focusing initially on tackling processes individually, rather than trying to change the entire organisation at once. This is despite most popular literature discouraging this, implying that a core feature of Lean Six Sigma is that it should apply to the whole enterprise, and requires a completely different approach to the minute-by-minute management of the organisation.

Trustees, managers, volunteers and staff are all generally invested emotionally in the charity’s mission, so may take change personally. Therefore, the consideration of any significant new approach, such as Lean Six Sigma, needs to be properly explained – it cannot be seen as a threat, to staff jobs for example, but as something that will bring benefit to the overall mission and effectiveness in serving beneficiaries.

Case study: Clic Sargent travel project

- Used LSS SIPOC tool to construct project brief;
- Mapped out and analysed in detail all processes by which staff travel was booked;
- Used LSS tools to identify, weight and score each root cause of the issues uncovered;
- Used structured criteria to evaluate over 12 solutions, selecting five for implementation;
- Closely monitored rollout phase to ensure new practices stuck;
- Six-month project produced a net saving of £91,000, which is expected to rise;
- Significant non-financial benefits from cross-functional interaction, plus improvements to staff work-life balance from some solutions.

The complexity of Lean Six Sigma

The manufacturing roots of Lean Six Sigma are belied by its focus on measurement and the sometimes confusing plethora of tools, buzzwords and terminologies probably far removed from the cultures of most charities.

“ Respondents using Lean Six Sigma were generally among the largest ”

Like anything else, charities should only use Lean Six Sigma tools in ways that benefit the overall mission. Both World Vision International and Guide Dogs state that although they would recommend Lean absolutely, both would only use Six Sigma tools if the benefits clearly justified the level of data capture required. It may be that if charities are looking to take an initial step, they should focus on the five Lean Principles as a guiding approach, only adding Six Sigma tools if there is a specific process that would benefit and data can be captured easily.

Within Guide Dogs, statistical analysis is proving to be of benefit at the National Breeding Centre, where the entire process is undertaken in a

single location with a focused staff team. In analysing other activities, however, the emphasis is on setting agreed standards, monitoring performance against these and then solving problems that arise. Gordon Smith stressed that a key aspect of this is using tools to dig down to the root causes when they deviate from the standard, so that genuine solutions can be found and implemented that ensure no recurrence of the problem.

Size of charity

One of the clearest findings from the questionnaire was that those using Lean Six Sigma were generally among the largest that responded in terms of annual income. By contrast, a study of the supply chain for food banks observed a reluctance in these charities to make capital investments in systems that would generate future cost efficiencies.

As a larger charity, Clic Sargent spent £260,000 over two years establishing its Lean Six Sigma programme, investing a further £128,000 in systems development as a result of its process analysis. In return it generated measurable recurring annual savings of £1.09m. Presumably the set-up costs would

to some extent be proportionate to the size of charity – it had over 450 staff to engage with, for example.

There may be an element of fixed costs, particularly in the shape of staff time, which makes it less likely that it will be feasible for small charities to engage in Lean Six Sigma. However, as has been noted, there is an expectation that all charities make the most effective use of their funds in serving beneficiaries. The principles of Lean, with regard to eliminating waste, apply equally to a charity with a turnover of £10,000 or £10m as they do to larger ones.

An idea whose time has come?

There is no doubt that the demands on charities are increasing both in

terms of how they operate, but also in terms of the quantity of requirements. As government retreats from provision of many services, the sector needs to up its game in many ways. Lean Six Sigma is an overarching methodology proven in a variety of settings to enable organisations to reduce cost, while simultaneously increasing quality of service. It is therefore an approach that cannot be ignored.

Arguably it reflects the transformational work of the charity sector. Indeed, Andrew Parris, reflecting on World Vision International's process improvements, threw down the gauntlet to INGOs in general by asking why they find it so hard to consider formalised approaches

such as Lean Six Sigma when every gain in efficiency could result in more lives being transformed and potentially saved for the same level of expenditure.

Surely this should be more of a motivation than the pursuit of shareholder value in the commercial world. Can charities really settle for being “good enough”, rather than pursuing excellence for the sake of the people they are serving? ■



Nick Moore is head of support services at the Methodist Church

No one knows
income territory like our
PROFIT hunters.

BE THEY UK or global Profits, the Artemis hunters are experts at hunting both. But they are particularly proud to hunt Profits on behalf of charities. Many charities are interested in equity income strategies. And our hunters know income territory like the proverbial back of their hand. If you'd like to learn more about our hunting expeditions on behalf of charities, in the UK, Europe and globally, call Victoria Heffer on 020 7399 6207.



020 7399 6207 victoria.heffer@artemisfunds.com artemis.co.uk

Issued by Artemis Investment Management LLP which is authorised and regulated by the Financial Conduct Authority (fca.org.uk), 25 The North Colonnade, Canary Wharf, London E14 5HS. Contains Ordnance Survey data © Crown copyright and database right 2014.