

Introduction

Many recent attempts to improve service designs have revolved around applying the concept of Lean – the codification of the Toyota Production System, which is the greatest innovation in production design. However, this is being done by applying a set of Lean tools, which were developed in a production setting, where the problem to be solved was “how do we produce cars to the rate of the customers’ demand?” The problem to be solved in our service organisations is very different, namely: “how do we design in such a way that we can absorb the variation in the demand from our customers?”

Paradoxically, the application of Lean tools inhibits the innovation and creativity necessary in true service innovation, because the tools represent a standardised approach to service design. True innovation, however, occurs when you apply the same Thinking as is evident at Toyota – namely Systems Thinking. Systems Thinking in a service environment focuses on designing and managing the organisation with an outside-in customer focus; understanding demand; managing flow; understanding what is value and what is waste; and using capability measures, which tell us how well we achieve against our customer defined purpose. It is a radically different view of the organisation compared to traditional thinking, and it releases the potential for great service innovation.

Structure of the workshop

In this workshop, the participants will initially be presented with a short history of Systems Thinking and how the learning from Deming and the Toyota Production System has led to a systems view of the service organisation. The participants will be involved in exercises to explore the relationship between management thinking, the system design and performance, as experienced by the customers.

The participants will then be introduced to the Vanguard method for understanding the service organisation as a system. The Vanguard method has been developed and refined through practical application in the UK over the past 25 years, and it was developed by John Seddon, occupational psychologist and visiting professor at Cardiff University.

For each step in the method, participants will be introduced to the theoretical foundation, followed by group exercises and review to facilitate practical learning of the method.

It’s a Thinking thing

In the early years of the 20th century, the ‘American Big Three’¹ car manufacturers achieved remarkable leaps in efficiencies by applying high levels of standardisation and focus on minimising unit costs, while producing a very limited range of cars (initially only *one* model). However, when customers’ started demanding more features and styles of cars, the Big Three faced ever rising costs as a consequence of mass-producing variety in batches.

Meanwhile in the 1950s in Japan, Toyota started producing cars. They went to Ford’s plant at the Rouge to learn, and what caught their attention was the overall continuous flow of

¹ The Big Three is Chrysler, General Motors and Ford

work through the plant as a whole. This initial realisation combined with the ambition only to produce the cars the customers wanted to buy, was what drove the development of the Toyota Production System.² A production system which was driven by a different way of *thinking* about design and management of the work.

In spite of the shortcomings in dealing with variety in mass-productions, the ‘Big Three’ approach has become the most common within manufacturing. In addition, the past 20 years, this way of thinking has paved its way in to the service environment also, and this is being done from the assumption that service can be viewed as production. However, “in manufacturing you can ‘get away with’ command and control (at a cost) because, after all, the products you make are standard; there are economies of scale. To adopt the same scale-economies approach for a service organisation, however, is to court failure. When applied to service organisations, the traditional command-and-control design responds to the variety of customer demands by establishing procedure, standard forms, functions, levels, specialised ‘factories’ and the like to deal with them. The consequence is enormous amounts of waste.”³

The key to tap in to the great success of Toyota for the service organisation is not to copy the tools applied at Toyota’s plant, since these were developed to solve specific problems in a production setting. The key, however, is to learn how to *think* about design and management in the same way. If you change the way you think about the design and management of the work, you will face different problems, which will guide you to different solutions.

The difference between Traditional command-and-control thinking and Systems Thinking for service organisations is highlighted in the model below.

Command-and-control versus systems thinking⁴

COMMAND-AND-CONTROL THINKING		SYSTEMS THINKING
Top-down, hierarchy	PERSPECTIVE	Outside-in, system
Functional	DESIGN	Demand, value and flow
Separated from work	DECISION-MAKING	Integrated with work
Output, targets, standards: related to budget	MEASUREMENT	Capability, variation: related to purpose
Contractual	ATTITUDE TO CUSTOMERS	What matters?
Contractual	ATTITUDE TO SUPPLIERS	Cooperative
Manage people and budgets	ROLE OF MANAGEMENT	Act on system
Control	ETHOS	Learning
Reactive, projects	CHANGE	Adaptive, integral
Extrinsic	MOTIVATION	Intrinsic

² Johnson and Bröms (2000), chapter 1

³ Seddon, J. (2003), p. 21

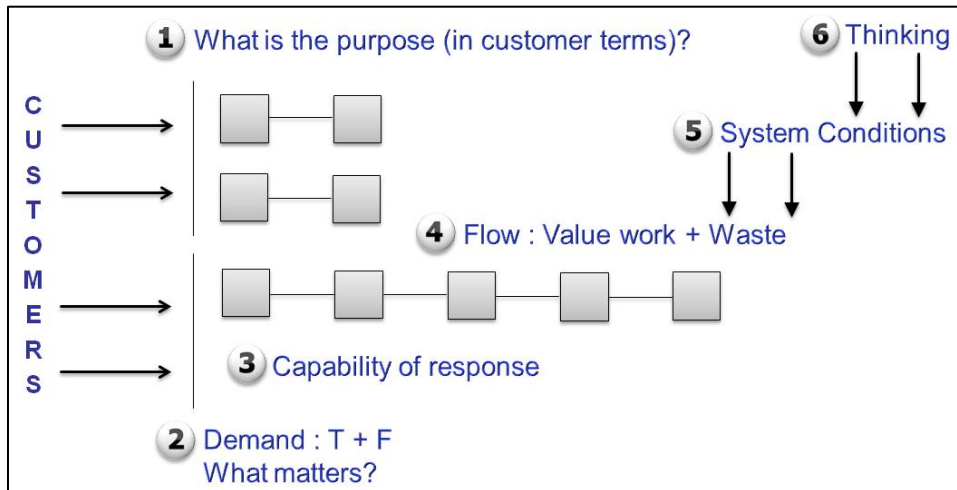
⁴ Seddon, J. (2008), p. 70

The Vanguard Method

The Vanguard method for change is build on the idea that change must be based on knowledge. In order to get knowledge, the first step in any service intervention starts with Check. The Vanguard model for Check helps facilitate a thorough understanding of the organisation as a system, which is necessary in order to start designing new services or improving the current service organisation.

The Vanguard model for Check is depicted below.

The Vanguard model for Check, "Systems thinking in the public sector", Seddon, p. 79



1. Understanding Purpose

The first step in the model for Check is to define the purpose of the service organisation from a customer's point of view.

2. Understanding type and frequency of demand

Understanding the nature of demand is paramount for the systems thinking service organisation. It is important to go to all the places where the customers interact with the organisation to understand: why do they call, what do they want, what would create value to them, what matters to them, etc. The analysis focuses on establishing knowledge about the predictability of the different types of demand placed on the system. All demands can be classed as either:

- » **Value demand:** demand, where customers pull value from the organisation
- » **Failure demand:** demand caused by a failure to do something or do something right for the customer

Understanding predictability of demand is essential, since designing against the unpredictable would make the system unnecessarily complex and costly.

3. Understanding Capability

Capability is focused on understanding how well the system responds to demand. Here it is imperative that the organisation measures the current capability from a customer point of

view. Too often service organisations are run from measures, which tell little or nothing about how well the end-to-end service experience is for the customers. Capability measures provide true knowledge about how well the service is functioning, and the attention to understanding the causes of variation provides focus on potential improvements.

4. Understanding the Flow of work

Often traditional managers want to start any improvement by mapping the processes in the organisation. However, by starting with mapping flow, two vital pieces of information is neglected: knowledge about demand, which tells you what to map, and performance measures against purpose, which tell you where your priorities lie.

When mapping flow it is essential to follow successive actual pieces of work. Don't use the written down procedures or take people in to a room to map the flow. One needs to get an understanding of how well the work flows through the organisation by actually seeing and feeling it.

In the flow only two types of work exist: value work, which is work that directly help deliver purpose and waste, which is everything else.

5. Understanding System Conditions

The waste identified in the mapping of the work flows is all man-made. It is a consequence of system conditions such as measures, roles, process design, procedures, IT, structure, contracts, and so on.

This step in the model for Check is focused on identifying the main system conditions for the studied service, which in other words means identifying the root causes of the waste found in the flow. "Treating improvement as merely process improvement is folly; if the system conditions that caused the waste are not removed, any improvements will be marginal and unsustainable"⁵.

6. Understanding current management thinking

Following the model for Check achieves two things: As well as uncovering the 'what and why' of performance as a system, it shows managers that systems thinking means 'us too': it is our belief in targets, procedures and controlling people that creates waste in the flow, constraining the capability of the system from the customers point of view and generating large quantities of failure demand⁶.

Systems Thinking as a means to improve service design

Any innovation has to start with knowledge about how the service is currently performing from a customer point of view. Having detailed knowledge about the service as a system opens up for experimentation with new innovations around how the service can be designed.

⁵ Seddon, J. (2008), p. 81

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If we want to experience true service innovation we need to think differently about the design and management of the work. Changing thinking makes you face different types of problems, and the solutions to these problems always constitute great innovation and creativity.

This workshop is the first step along the way to achieve innovative design through Systems Thinking.

References

- Johnson, T. and Bröms, A. (2000). Profit beyond measure, The Free Press, NY10020
Seddon, J. (2003). Freedom from command and control, Vanguard Education Ltd, MK18
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Seddon, J. (2008). Systems Thinking in the Public Sector, Triarchy Press, EX13 5PF