

LEAN AUDITING



DRIVING ADDED VALUE AND EFFICIENCY IN INTERNAL AUDIT

JAMES C. PATERSON

WILEY

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DEDICATIONS

This book is dedicated to:

Isabelle, my wife and companion – I love you:

And my children:

Tim, Will, Nick and Felicity.

I'm so proud of you all!

CAEs and others in governance, risk, compliance audit and assurance, who are working to bring about positive change against, sometimes, quite considerable opposition.

I hope that this book serves in some small way to acknowledge many of the challenges and dilemmas you face. I also hope it gives some comfort that you are not alone in facing these challenges.

WITH SINCERE THANKS

To Lynda McGill – thank you for “reading every word” and for such patient, constructive and insightful input and for being so much more than just a conventional editor.

To all the Chief Audit Executives (CAEs), auditors and others, named and unnamed, who agreed to be interviewed: THANK YOU for your wisdom, practical good sense and for demonstrating just how useful the lean mindset can be.

To past colleagues in internal audit at AstraZeneca between 2002 and 2009 – we did work that was ahead of its time. Your efforts and achievements gave me the inspiration to go into consulting and training, and to write this book. Thank you.

To my clients and all who have participated in workshops with me across the globe. Thank you for your contributions, insights and enthusiasm – for learning and for sharing your war stories and practical insights. Your ongoing interest has kept me going over the nine months it took to research and write this book.

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Foreword

“Lean is a valuable concept, because it forces you to think about the bigger picture. It’s a way of thinking; it’s a mindset, with related tools and process behind it.

We start with identifying what are the valuable services and products that matter to your customer. And then thinking about what is necessary for you to deliver those in an acceptable level of quality and all the rest of it. Everything else is Muda (waste).”

Norman Marks (GRC thought leader)

Introduction

If you are reading these words, I imagine you have some interest in lean or in audit, or both, and may be wondering how these disciplines might be combined.

This is what I wondered in 2005 when I was Chief Audit Executive (CAE) for AstraZeneca PLC. Lean was suggested to me as something that could help the audit function step up its “added value” contribution, as well as improve its productivity.

I was uncertain at first about the applicability and usefulness of lean tools and techniques to internal auditing. But, as we learned about lean, and started to apply it, we were able to create a number of best practice ways of working and also achieved significant productivity gains (of around 20%).

This book outlines what lean can offer to internal auditing. It is based on over four years’ experience applying these techniques as a CAE. Thereafter, I have been running my own company and lean auditing has been one of the core areas of my training and consulting work. I have been fortunate to travel to the US, across the UK and Europe, the Middle East, the Far East and Australia to share lean auditing principles and techniques. I have been heartened by the interest in what I have had to say, and in the results that have been achieved by applying these ways of working.

As I prepared to write this book, I was keen to ensure that the efforts of other CAEs and auditors who are working to improve the impact of internal audit should also be captured. I therefore interviewed a number of CAEs from a range of organizations in the UK, US and elsewhere and their views and insights are captured throughout the book. I have also been fortunate to receive insights from other leading figures in the internal audit world, including Richard Chambers, President & CEO of the Institute of Internal Auditors (IIA), Norman Marks (a well known thought leader in Governance, Risk and Compliance (GRC)), Sarah Blackburn and Nicola Rimmer

(both former Presidents of the UK Chartered Institute of Internal Auditors (IIA UK)) and Chris Baker, Technical Manager of the IIA UK. Herein are also selected board members' observations about internal audit.

Consequently, this book represents not just the best of what I managed to achieve at AstraZeneca, and with my clients. It also captures a wider range of progressive practices in internal audit as well as related good practices in the GRC arena. You only need to reflect on the devastating impact of the financial crisis of 2007 and 2008, and countless other risk and governance surprises, to recognize there is considerable room for improvement in this field!

This book addresses many efficiency opportunities through lean ways of working. However, of equal or perhaps greater importance, this book offers a range of insights into what it means to add value, and through this, to reposition the role of internal audit as a key ingredient of organizational success.

As we will see, many of the CAEs I have interviewed for this book already have a "seat at the top table". Consequently, whilst a number of the principles, tools and techniques outlined in this book will be aspirational for some internal audit functions, they are successfully in operation for many others.

Whilst I will argue that the internal audit profession should play a more prominent, value-adding role, I do not believe that internal audit should take the lead in driving organizational performance and behavioural change. That is a role for the board and senior management. My belief is that internal audit should more clearly act in a *catalyst* role for organizational growth, continuous improvement and sustainability.

I hope to demonstrate that the use of lean principles and techniques can both inspire and support internal audit to take up such a role.

However, I also want to acknowledge that there can be significant barriers to achieving what I am proposing. Some of these barriers may be practical, but most come from the mindsets and preferences of board members, senior managers, and a range of others who prefer a traditional "compliance and control" role for internal audit.

In my opinion, the traditional "compliance and control" focus of audit acts like a heavy hand on the audit profession, limiting its ability to play a fuller role. The dominance of traditional ways of working partly stems from a legitimate need to gain assurance over the basics, but also from a significant inertia that has built up within the internal audit profession itself.

As this book proceeds I will try to outline how the lean audit mindset (and ways of working that flow from it) differs from the traditional

internal audit mindset, and traditional ways of working. I hope to demonstrate that, if internal audit is prepared to relinquish some of its familiar work in compliance and control auditing, which may appear to offer a degree of security, it will in fact make the internal audit profession more secure in the long run. Indeed I would go so far as to say that by continuing to carry out a large portion of traditional controls and compliance work internal audit may *perpetuate a range of organizational and cultural problems with Governance, Risk, Compliance and Assurance*.

As a result, some of the principles and practices outlined in this book may be challenging for some of the more traditionally minded auditors, senior managers and board members. As far as possible, I will try to explain how progressive and traditional ways of working can work together side by side, but I think that truly operating with a lean frame of mind does challenge a number of long-held conventions about internal audit. To my mind being prepared to “rock the boat” is a necessity if we want to put internal audit on the right path to being properly acknowledged as a key ingredient for sustainable organizational success.

THE VALUE YOU SHOULD RECEIVE FROM READING THIS BOOK

CAEs and internal auditors should be able to use this book as a resource to:

- Benchmark current audit plans, reports and ways of working;
- Identify practical ways to increase value adding activities, and minimize non value added activities within internal audit;
- Reposition the role that audit can play in the organization and understand the wider organizational benefits that will flow from that.

Board members and senior managers should be able to use this book to:

- Identify whether internal audit is truly playing a positive role in their organization;
- Identify traditional, stale practices in Governance, Risk, Compliance and Assurance, that are not really adding anything;
- See the benefits of embracing lean principles in the arena of Governance, Risk, Compliance and Assurance, more generally.

Academics and others with an interest in sustainable organizational growth should be able to use this book to:

- Deepen their understanding of the challenges that many audit professionals face on a day to day basis;
- Consider how lean principles might offer an interesting insight into debates about what makes effective Governance, Risk, Compliance and Assurance.

Those with an interest in lean should be able to use this book to:

- Understand how lean principles, tools and techniques have been applied successfully to the world of Governance, Risk, Compliance, Audit and Assurance;
- Consider other ways in which lean approaches might be applied in these fields.

I personally have several hopes for this book:

- That it will stimulate more granular “real world” discussions about the dilemmas and challenges that auditors face;
- That lean principles, tools and techniques will enjoy a more mainstream position in the audit profession, and that we will become much more rigorous when we talk about “adding value” and efficiency;
- To open up more reflection on a range of long established ways of working within internal auditing;
- To create a greater recognition that through the development of a *multi-disciplinary approach to internal audit* we will enhance the reputation of our profession, and properly emphasize the importance of leadership and softer skills *alongside* detailed technical skills.

Overview of the Contents

This book is structured as follows:

PART 1 LEAN AND LEAN AUDITING IN OVERVIEW

1 Lean Auditing at AstraZeneca

In which I briefly explain the origins of lean auditing when I was CAE at AstraZeneca and the results it delivered.

2 A Brief History of Lean, Notable Principles and the Approach Taken by this Book

In which I discuss the origins of lean, its key principles and how it has increasingly been recognized to deliver results in a range of fields. I also outline the different sorts of lean (e.g. Lean Six Sigma and lean systems thinking) and the approach this book takes to these.

3 Key Lean Tools & Techniques

In which I outline a selection of key lean tools and techniques that have proven their worth in terms of driving greater effectiveness and efficiency and also in an internal audit context.

4 The Development of Lean Auditing and its Benefits

In which I explain how I developed lean auditing with a range of audit functions, and the benefits that have been obtained, both for internal audit and key stakeholders.

5 The Hallmarks of Lean Auditing and the Organizational Culture this can Support

In which I discuss how some conventional and traditional audit ways of working can perpetuate problems with organizations' Governance, Risk, Compliance and Assurance practices. I then go on to explain how lean progressive ways of working will not just improve the impact of audit assignments but also play a role in improving the wider organizational GRC culture.

PART 2 LOOKING AT INTERNAL AUDIT PLANNING AND ASSIGNMENT DELIVERY

6 Who are the Customers of Internal Audit?

In which I explore the question of the range of stakeholders who have an interest in audit and the benefits of having clarity about which of these stakeholders are key – if any.

7 What Really Adds Value – And What Doesn't

In which I use lean techniques to examine what we really mean by “adding value”, and – just as important – to understand what doesn't add value.

This chapter also addresses the important topic of differences between stakeholder perspectives concerning what adds value (and what does not).

8 The Importance of Role Clarity in Assurance and the Insights Lean Can Offer

In which I highlight the vital importance of having clear roles and accountabilities in order to drive both effectiveness and efficiency; and some of the key tools that can be used to drive greater role clarity, both for key functions as well as internal audit.

9 The Audit Plan: Taking a Value Approach

In which I discuss the ways in which taking a lean, value-added approach to the audit plan can ensure that audit looks at the right areas, overcoming the common failing of having a disconnect between the audit plan and the key objectives and risks of the organizations they support.

10 Factoring in Risk Assurance in the Audit Plan

In which I discuss the crucial role of understanding the risk assurance picture before developing the internal audit plan. This approach challenges some common conventions in audit planning, including the way management is asked for their views on the areas that audit should look at.

11 Considering the Allocation of Resources to Optimize Value Add

In which I discuss how lean, progressive audit practices can encourage greater quality debates about the way audit resources are allocated across different risk areas in order to maximize the value derived from the plan. A number of the techniques outlined have been invaluable for a number of CAEs facing pressure on their budgets.

12 Assignments – Types, Scheduling and Resourcing

In which I highlight the need to move beyond standard assignment types and to resource and schedule assignments more flexibly, based on their value. Lean techniques help us to create a clearer flow of assignments during the year, reducing delays in starting to deliver the audit plan as well as the common problem of rushing to complete assignments towards the end of the year.

13 Using Assignment Scoping and Planning to Drive Added Value

In which I highlight the importance of properly scoping and planning assignments so that they can deliver the maximum value. This includes the important step of being clear about the key risks and controls that should be tested, and making the maximum use of intelligence so that the assignment does not simply repeat what is already known and has the maximum chance of delivering outcomes that matter.

14 Assignment Delivery – Managing What Really Goes On

Where I discuss the reality of what actually happens when audits start. I look at the many ways that time can be lost and offer a range of proven approaches to help drive audits forward in a purposeful way. In particular, I examine ways to think more carefully about what testing should be done and the challenge of knowing when to stop.

15 Using Communication and Quality Standards to Maximize the Added Value from Assignments

In which I discuss the ways in which assignments can get into difficulty in their latter stages. This can include difficulties and delays at audit closing meetings, finalizing audit reports (including agreeing actions) as well as meeting quality assurance standards. Lean, progressive ways of working help auditors drive assignments towards a value adding conclusion and overcome the many delays and distractions that are commonplace.

16 Assignment Follow-Up and Follow On

In which I show how lean principles encourage audit to take a fresh look at the process of tracking remediation of open actions and audit follow-ups. Lean ways of working can radically reduce the time and effort spent by audit doing follow up work, whilst driving greater reliance on management assurances.

PART 3 LOOKING AT KEY UNDERPINNING CAPABILITIES, PROCESSES AND WAYS OF WORKING

17 Measuring Performance and Driving Improvements in Audit Ways of Working

In which I examine the way lean encourages us to take a fresh look at the metrics and key performance indicators collected and reported

by audit. I also look at ways to enhance assignment methodologies, to strengthen quality control in a streamlined way and to drive value from External Quality Assessments (EQAs).

18 Using Lean Audit Principles to Underpin Cultural Change in the Wider Organization

In which I highlight in more detail the ways in which lean ways of working can help to improve the GRC and assurance culture of an organization. Areas that can be improved include streamlining the policy and compliance landscape, strengthening the role of risk and compliance functions, and improved assurance coordination.

19 Leading the Audit Function

In which I discuss the leadership characteristics and capabilities of Chief Audit Executives (CAEs) who lead lean, progressive, value-adding audit functions. In particular I share key messages from my own experience and from other CAEs about how they retain a sense of perspective in managing the many dilemmas that CAEs have to navigate.

20 The Audit Function: Selection, Training & Development and Ways of Working

In which I examine the way that lean, progressive, audit functions approach recruitment, staff development and leverage other skills, through guest auditors, guest advisors and/or co-source providers. This chapter raises some important questions concerning the optimal balance of skills within an audit function.

PART 4 FINAL REFLECTIONS

21 Further Thoughts about Where and How to Start the Journey towards Lean Progressive Auditing

In which I examine choices around where and how to start or make further progress in relation to lean audit ways of working. A key message, based on my experience as a CAE and with clients, is that implementing lean auditing does not have to be time-consuming or expensive.

22 A Brief Look into the Future

In which I examine potential developments in audit and my hopes for the future. I also reflect further on the key dilemmas that internal auditors and CAEs face on a day-to-day basis and consider whether we can do more as a profession to support one another in this regard.

PART 1
Lean and Lean Auditing in
Overview

1

Lean Auditing at AstraZeneca

After 15 years working in a range of finance roles, I was appointed the CAE of AstraZeneca PLC in 2002. My appointment came a few months after the enactment of the US Sarbanes–Oxley Act, following the collapses of Enron and Worldcom.

If I needed a reminder that good financial control was important, this was it. I therefore spent the first two years in my role supporting and quality assuring the embedding of Sarbanes–Oxley disciplines, whilst also working on a range of other areas in GRC and assurance as well as developing the internal audit function.

By 2005 we had made progress on a number of fronts. However, it was clear that pressure on costs would increase, and as a result my audit management team and I decided that we should engage with the cost agenda in a proactive manner: “Better to work on our efficiency and effectiveness ourselves than have someone else do it for us.”

At the suggestion of one of the Audit Directors, David Powell, we decided to work with colleagues in AstraZeneca’s manufacturing function, who specialized in lean manufacturing techniques. We contacted John Earley (now Partner, Smart Chain International), who was working in manufacturing at the time, and after obtaining some key inputs from him, we developed a number of new ways of working within the audit function.

What impressed me at first was just how quickly and cheaply the lean techniques could be implemented and the scale of the efficiency gains achieved. In later years I also admired the way lean principles informed much of what we were doing to deliver added value: from audit planning to stakeholder engagement, from our approach to assignment delivery to the way we carried out testing, and from the way we reported our work to the performance metrics we used.

The lean auditing approach also offered a positive way of thinking about the role of internal audit and the value it could deliver that was appreciated by both senior managers, the board and audit staff. In addition, our approach to audit planning and the ways that we had changed our executive and board reporting gained recognition within the internal audit profession (within the IIA UK and also the Corporate Executive Board, Audit Director Roundtable).

Further details of the progressive practice we developed will follow in subsequent chapters. However, first it seems appropriate to say a bit more about lean.

References and Other Related Material of Interest

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2

A Brief History of Lean, Notable Principles and the Approach Taken by this Book

Having explained that the application of lean made a significant difference to internal audit within AstraZeneca, this chapter sets out some background about lean: where it came from, its key principles and the benefits that are likely to result from putting it into practice.

ORIGINS OF LEAN AND THE BENEFITS IT DELIVERS

Some argue that the story of lean can be traced back to boat construction in 16th Century Venice, but I suspect we could go back further to road building techniques and weapons manufacture in Roman times. However, the story of lean as a holistic set of principles, tools and techniques is widely understood to centre around Toyota's achievements after World War Two.

Influenced by developments in the US and elsewhere, for a period of over a decade Toyota developed various production line techniques into a complete management system, called the Toyota Production System (TPS). TPS comprised a range of product and process development techniques, supply chain management techniques, new approaches to problem solving (such as root cause analysis), improved approaches to customer service and new approaches to leadership and teamwork. In 1965 the Deming prize for quality was granted to Toyota for TPS.

As a result of TPS, Toyota became capable of making cars at a significantly lower cost than a number of major US motor manufacturers, despite their scale advantages. Toyota, alongside many other Japanese car companies (who were using similar approaches), therefore gained increasing success across the world.

The label “lean” for the techniques developed and applied by Toyota was first used in 1987 by John Krafcik, a student at that time of the Massachusetts Institute of Technology (MIT) International Motor Vehicle programme. Krafcik observed that Toyota’s systems and processes:

- Required less investment for a given production capacity;
- Went from concept to delivery with less time and effort;
- Delivered products with fewer defects.

He observed: “It needs less of everything to create a given amount of value, so let’s call it lean.”

After this came a series of important books from key players in the MIT International Motor Vehicle programme:

- *The machine that changed the world* by Womak, Jones and Roos, that gave an account of the techniques employed by Toyota and other Japanese manufacturers and demonstrated the superior performance of this approach;
- *Lean Thinking* by Womak & Jones, which sets out the key principles of lean and also noted the successes of a number of other organizations in the US and Europe as a result of implementing lean techniques.

Typical benefits obtained from lean ways of working include:

- Reductions in: defects, lead times, cost, inventory and waste;
- Improvements in: customer satisfaction, productivity, capacity, responsiveness and quality.

Since then extensive research has been undertaken to deepen our understanding of the power of lean and numerous other lean books have been published. Lean techniques have been successfully applied in a range of sectors outside of motor manufacturing (e.g. in white goods and pharmaceuticals manufacturing) and, increasingly, in service sectors (e.g. airlines, healthcare). Lean has also been successfully applied

in a range of support and service areas (including finance and administration).

KEY LEAN PRINCIPLES, TOOLS AND TECHNIQUES

The overall philosophy underpinning lean is to maximize customer value whilst minimizing waste. The Lean Institute states that lean means: “creating more value for customers with fewer resources.”

The Five Key Principles of Lean

The five key principles of lean can be summarized as:

Specify Value from the Point of View of the Customer

The aim is to have a deep and ongoing understanding of exactly what the customer is looking for and what they value. A common question in lean circles is “What is the ‘Voice of the Customer’ saying?” Lean asks us to be wary of giving the customer simply what is convenient for the producer, though it recognizes the place for offering new and innovative products/services (even if they were not requested), if they are going to be valued by the customer (e.g. the Apple iPod).

Identify the Value Stream

Having understood what is valued, the goal is to understand, in detail, the sequence of processes and activities that deliver this value, all the way from raw materials (if applicable) to the final customer. Lean asks us to critically appraise the purpose of each of these steps: what value is added by each step (in the eyes of the customer) through the whole process, from end to end.

Flow

Based originally on a production line mindset, but extended to a more general principle, lean encourages us to make value flow. Lean asks us to look out for waste in any form, such as rework, delays or other interruptions to delivering value. Other issues (such as overburdening or underutilization) should also be noted and addressed. This lean

principle also requires close attention to the supporting or preparatory activities that underpin customer delivery.

Pull

The lean goal is to deliver customer demand at the time it is needed – not too early (since that can be inefficient and wasteful) or too late (since that will normally not be what the customer wants), but “just in time.”

Seek Perfection in Ways of Working

Lean asks us to seek the ideal way – delivering exactly what the customer wants, when it is wanted, at a fair price and with minimum waste. This lean principle goes deeper than just being in line with competitors and what others are doing, (e.g. taking a benchmarking approach). Lean is a way of working that looks for maximum customer value with zero waste – at least as a goal. Linked to this principle is the “Kaizen” notion that one should strive for ongoing improvement, since few processes, if any, will achieve the goal of perfection.

The lean principles set out above should not be viewed as a linear step-by-step checklist, but rather as a set of underpinning principles informing all ways of working.

Other Schools of Lean and the Neutral Approach of this Book

Associated with lean is the field of product quality and six sigma (which is used to drive a very low rate of deviation from required standards). This has led to Lean Six Sigma, which is useful for the manufacture of products that need to be made to a high product quality specification.

In addition, lean has been combined with systems thinking (which is concerned, amongst other things, with the ways different parts of an organization are interrelated), resulting in the lean systems approach.

Other approaches to lean also exist, but I take an open-minded approach to the various “flavours” of lean. I think each lean approach has something interesting to say, but I do not believe internal audit should be wedded to a specific lean approach. I have spoken to some CAEs who have been through a lean review (often as part of a wider organizational programme), but have found this has offered limited benefit. This can happen when those driving the lean review are mostly