

REVOLUTIONIZE YOUR INTERNAL AUDIT PRACTICES

THREE CORE COMPONENTS TO

Beyond Agile Auditing



Clarissa Lucas

CIA, CISA, CIDA

Foreword by Misty Kuamoo

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IT Revolution
Portland, Oregon



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BEYOND AGILE AUDITING



To Christian:

Keep chasing your dreams.

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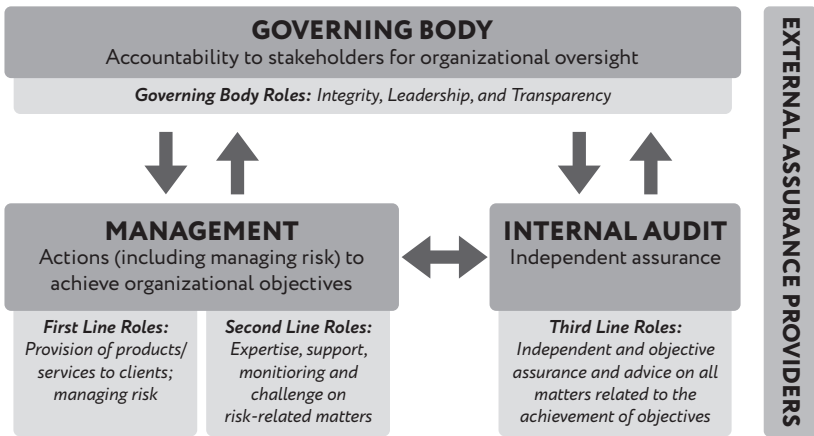


Figure 1.1: The IIA’s Three Lines Model

Reproduced from Institute of Internal Auditors. *The IIA’s Three Lines Model: An Update of the Three Lines of Defense*. The Institute of Internal Auditors: Lake Mary, FL: 2020. <https://www.theiia.org/globalassets/documents/resources/the-iias-three-lines-model-an-update-of-the-three-lines-of-defense-july-2020/three-lines-model-updated-english.pdf>.

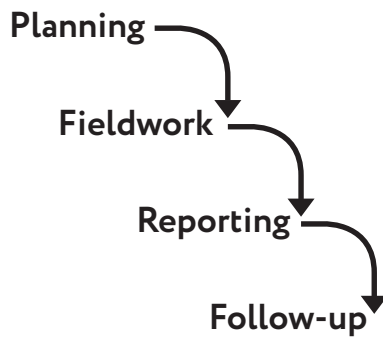


Figure 1.2: Traditional Waterfall Audit Process

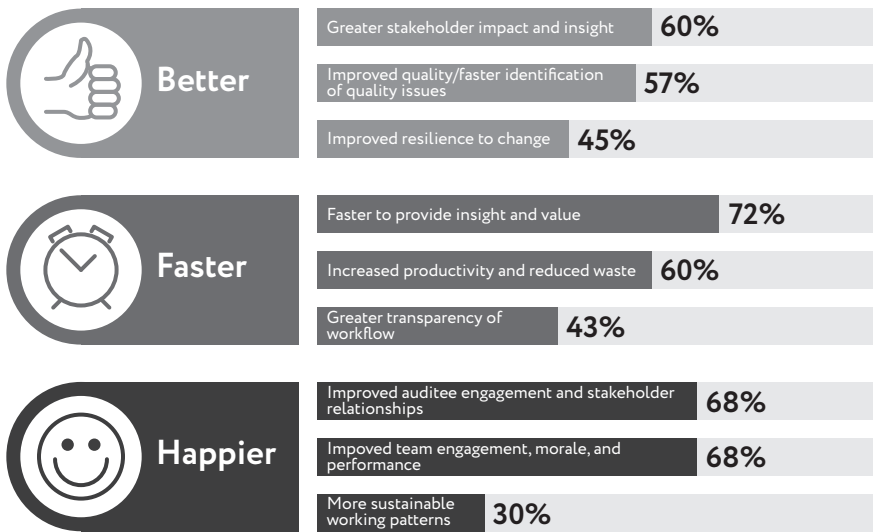


Figure 2.1: The Percentage of Functions Reporting Benefits through Agile IA (by Benefit Category)

Reproduced from Deloitte. *Agile Internal Audit Four Years On: Better, Faster, Happier? A Retrospective*. Deloitte Development LLC, 2021. <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Risk/gx-agile-internal-audit-four-years.pdf>.

2009	2022
<p>The two presenters represented areas that were historically adversaries: Paul from development and John from operations.</p>	<p>While I represented Internal Audit, my copresenter represented the client.</p>
<p>Paul and John explained how Dev and Ops at Flickr got along and worked together.</p>	<p>My copresenter and I explained how the auditor and the audit client got along and worked together.</p>

Table 3.1: DevOps 2009 Presentation vs Auditing 2022 Presentation



Figure 3.1: The Three Core Components of Auditing with Agility

Number of Simultaneous Projects	Percent of Working Time Available per Project	Time Lost to Context Switching
1	100%	0%
2	40%	20%
3	20%	40%
4	10%	60%
5	5%	75%

Table 4.1: Waste Caused by Project Switching

Reproduced from Weinberg, Gerald M. *Quality Software Management: Systems Thinking*. Dorset House, New York: 1992.

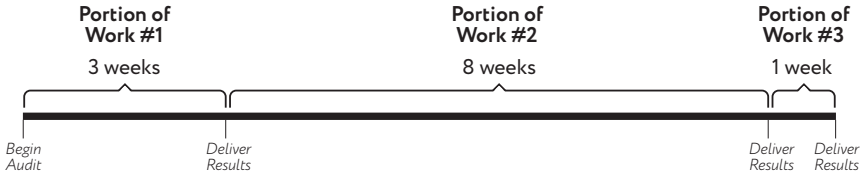


Figure 5.1: Audit Delivered in Iterations Aligned with Specific Portions of Work

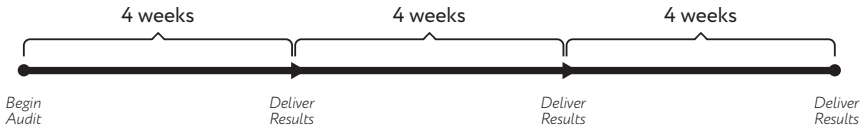


Figure 5.2: Audit Delivered in Sprints

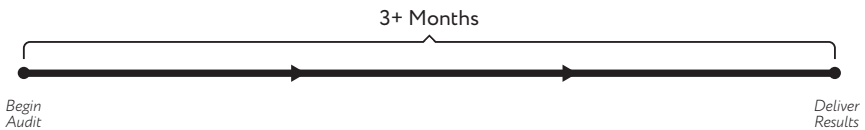


Figure 5.3: Waterfall Delivery of an Audit

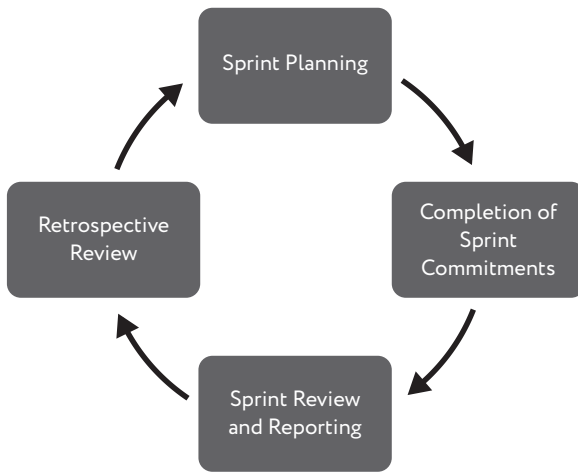


Figure 5.4: The Sprint Cycle



Figure 5.5: Payroll Audit Broken into Sprints

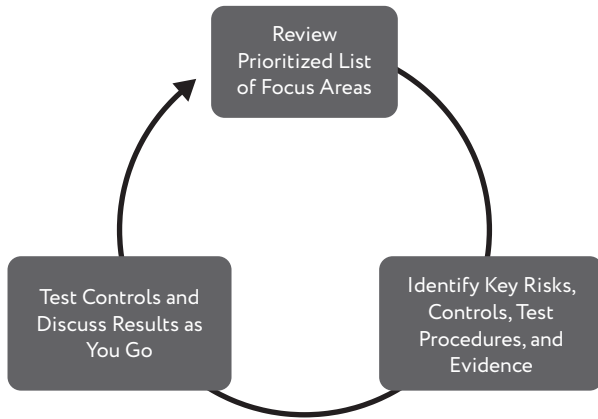


Figure 5.6: Areas of Focus Cycle

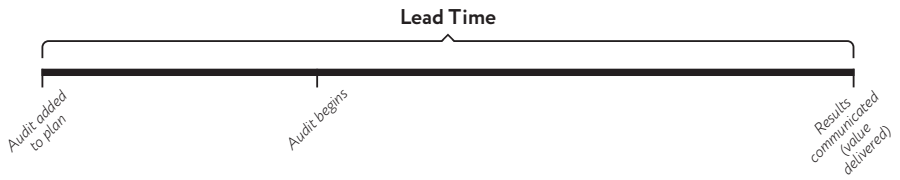


Figure 5.7: Lead Time in an Audit

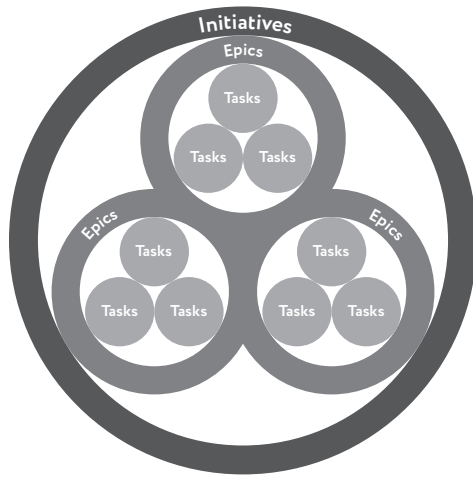
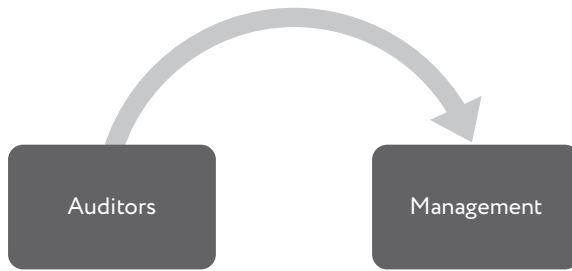


Figure 5.8: Initiatives, Epics, Tasks



**Figure 6.1: Integrating Audit into the Client's Daily Work
(Systems/Flow Thinking)**

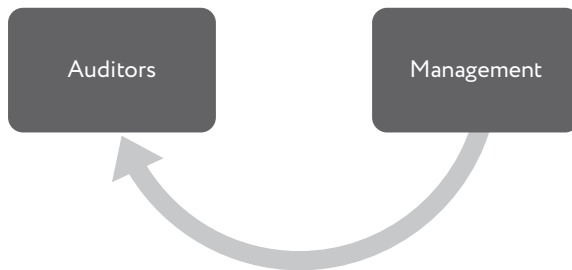


Figure 6.2: Feedback Loops



Figure 7.1: Benefits of Small Batches in an Audit

Appendix

Much in the same way that DevOps leverages Agile practices, and Agile built upon Lean concepts, the concepts presented in this book are rooted in Agile, Scrum, and DevOps principles and practices. Thus, I've placed more details on many of these practices and cultures here in this appendix. But I also encourage you to go out and read many of the great books around each of these ideas.

Agile

Agile software development is based on the Agile Manifesto, which is composed of four values and twelve principles. The four values are as follows:¹

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan

While three of the four of those values translate directly to audit work, one of them doesn't. Specifically, valuing working software does not. In Chapter 5, we modified that principle as follows: valuing actionable insights over extensive documentation.

In addition to the four values, the Agile Manifesto includes twelve principles to add agility to software development. The Agile Alliance defines these principles as follows:²

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity—the art of maximizing the amount of work not done—is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

While some of these Agile principles are easily transferable to audit work, not all are as clearly relatable. Just as we modified the Agile values to better align with audit work, the twelve Agile principles can also apply to the auditing process with only slight modifications. As such, the twelve principles of Auditing with Agility are as follows:

1. Satisfy stakeholders through early and continuous delivery of value.
2. Embrace changes, even late in the audit process.
3. Deliver value frequently.
4. Auditors and their clients work together daily.
5. Build projects around motivated individuals; support and empower them.
6. Prefer face-to-face conversation over asynchronous communication.
7. Delivery of value is the primary measure of progress.
8. Promote sustainable work; the team should be able to maintain a consistent pace indefinitely.
9. Pay continuous attention to technical excellence and quality work.
10. Pursue simplicity.
11. Leverage self-organizing teams.
12. Reflect on how to become more effective, and adjust behavior accordingly.

Scrum

Scrum is a framework used primarily in software development where teams work together to achieve a shared goal, typically by delivering value iteratively. Scrum teams use sprints to deliver in iterations.

Because Agile Auditing closely resembles the Scrum framework, some Agile Auditing teams structure their roles similarly to how Scrum teams do in a technology setting. Common roles include the following:

- Product owner
- Scrum master
- Developers/Scrum team members

At first glance, it may not be abundantly clear how these roles translate to the world of auditing. Some take a little more imagination than others.

Product Owner

Let's start with the product owner. The product owner is ultimately accountable for the product. In technology, the product is often an application or technology platform. In Agile Auditing, the product is value, so the product owner is whoever is ultimately accountable for delivering value to the client and other key stakeholders. This role is typically held by an audit leader (either the chief audit executive or one of their direct or indirect reports). In some organizations, the product owner may be the auditor in charge. There is no right or wrong answer to the question of who should play the role of product owner in the audit. Each audit organization has a unique structure with a unique distribution of accountability, both of which will influence determination of the product owner for an audit.

There may also be product owners for other portions of the audit process. For example, while an auditor in charge may be the product owner for a specific audit, the chief audit executive of the same organization may be the product owner for the audit plan itself. In this example, the auditor in charge is accountable for delivering value through a specific audit engagement, while the chief audit executive is accountable for delivery of the audit plan.

The product owner's key responsibilities include defining a vision of the product and determining what work is necessary to deliver the product. Product owners have decision rights over what tasks are included in the product's backlog and how those tasks are prioritized. The product owner is accountable for working

with customers to define value to be delivered. In an audit context, the customers are the client and other key stakeholders. The product owner can also be responsible for helping to remove impediments to the team's work.

Scrum Master/Team Outcome Lead/Agile Leader

The Scrum master, also referred to as the team outcome lead, Agile leader, or another similar title, can be at any level in the audit organization. What's most important is that the Scrum master demonstrates a thorough understanding of Scrum or Agile Auditing concepts and possesses the ability to coach other team members on those concepts and practices. With the help of the product owner, the Scrum master also helps to remove impediments to the team's work. The Scrum master is an invaluable role, particularly when audit organizations are in the beginning stages of moving to Agile Auditing. The team will look to the Scrum master to guide them through the initial learning curve when moving to Agile Auditing practices. They will also look to the Scrum master to keep them focused during stand-ups, even as they become more and more accustomed to this way of working. The Scrum master is often a key role in the effective implementation of Agile Auditing.

Auditors serving as Scrum master for an audit may also take on some of the audit work, such as testing controls or drafting the audit report. Due to the steep learning curve and cultural shifts often needed to transition from a waterfall audit approach to Agile Auditing techniques, it is recommended that the Scrum master focus primarily (or solely) on their duties as Scrum master during early stages of the transformation. As the auditors become more well versed in these newer practices, Scrum masters may begin to take on more work not directly associated with the Scrum master role, as long as they do not lose sight of their accountabilities bestowed upon them as Scrum master.

Developers/Scrum Team Member

The concept of a product owner and a Scrum master are fairly easy to grasp when transferring from a technology-focused application to application in the audit process. The role of developer does not immediately translate as clearly. Developers in a technology organization are accountable for developing the features or the elements that will culminate into the final product. They're the ones doing the hands-on work that goes into delivering the product. In an Agile Audit, the "developers" are the individual auditors who are accountable for completing the work necessary to deliver value to the client, and are sometimes called "Scrum team members." These

are typically the staff assigned to the audit, who are accountable primarily for testing controls and articulating audit observations.

A key concept related to teams under the Agile Audit methodology is that the team must collectively possess the skills necessary to accomplish tasks to achieve the team's goal. Translating this to the world of auditing, an Agile Audit team needs to have the skills necessary to conduct the audit. Each team member need not individually possess all of those skills; rather, each team member should bring a skill or skills, such that when combined, the team has the skills it needs to effectively perform the audit work.

Estimating Story Points

In Chapter 5, you learned about the practice of increasing the visibility of work. Teams that make their work visible often estimate the effort needed to complete work. Story points are another way of describing the amount of time or work it takes to complete a task. There are a few different ways you can estimate story points, including Fibonacci numbers and T-shirt sizes. I outline a few options below.

The Fibonacci numbers are a sequence of numbers, where the next number in the sequence is the sum of the two preceding numbers (1, 1, 2, 3, 5, 8, 13 . . .). Using these numbers to estimate effort for audit tasks might look something like this:

- 1 point: Straightforward tasks requiring minimal effort to complete (e.g., scheduling a meeting with another individual or completing a fifteen-minute training course)
- 2 points: Fairly straightforward tasks requiring a small level of effort (e.g., scheduling a meeting with a large audience or completing a thirty-minute training course)
- 3 points: A slightly more complex task requiring a medium level of effort (e.g., documenting the risk and control matrix, testing the design of a control or testing the operating effectiveness of a control with a small sample size)
- 5 points: A more complex task requiring a large level of effort (e.g., testing both the design and operating effectiveness of a control with a small sample size)
- 8 points: A complex task requiring an extremely large level of effort (e.g., testing or an entire population or a large sample, building a test using data analytics, an all-day training)

Using T-shirt sizes as a method of estimating points may appeal more to those who prefer visualization:

- XS: Straightforward tasks requiring minimal effort to complete
- Small: Fairly straightforward tasks requiring a small level of effort
- Medium: A slightly more complex task requiring a medium level of effort
- Large: A more complex task requiring a large level of effort
- XL: A complex task requiring an extremely large level of effort

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About the Author

Born in Pittsburgh, Pennsylvania, Clarissa Lucas is an experienced audit and risk management leader in the financial services industry. She began her writing endeavors in 2019 when she published her first white paper as part of a department learning initiative for the Fortune 100 company for which she worked. Since then she has become a thought leader for the auditing profession and began pioneering the term “Auditing with Agility” within her own team and with other local audit teams. She has written articles on Auditing with Agility that have been published by the IIA and IT Revolution. Clarissa has spoken at a number of industry conferences on this topic locally and internationally. She wants to help even more people understand this topic, so this book transpired. She hopes you use it as a tool to share and expand your own organization’s influence and value-potential.

Clarissa earned her bachelor’s degree in mathematics with a minor in accounting from Washington and Jefferson College and an MBA from Waynesburg University. She is a Certified Internal Auditor, Certified Information Systems Auditor, and Certified Investments and Derivatives Auditor.

She currently resides in Johnstown, Ohio, with her husband, Chris, their son, Christian, and doodle puppy, Rosie. Outside of work, Clarissa spends most of her moments with her family, reading, working out, and taking an occasional extra trip with her bestie. She can oftentimes be found in ice rinks around the Midwest, holding a hot beverage and watching her son play hockey.

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