Operational Excellence in High-Growth Environments: A Case Study on Scaling Without Losing Value

Nadia Z. Humbert-Labeaumaz

Contents

Abstract **2**

Introduction **3**

Findings and Analysis **4**
- Current state . . . 4
- Identifying the constraint . . . 6
- Start-up mindset . . . 9
- Engineering practices . . . 9
- Capacity . . . 10
- Coordination . . . 11

Discussion **11**

Recommendations **12**
- Forming feature teams . . . 12
- Allocating time for unplanned work . . . 13
- Reducing work in progress . . . 13
- Applying engineering methods . . . 14
- Monitoring improvement . . . 14

Conclusion **15**

Appendices **15**
- Appendix 1. Bloom's taxonomy . . . 15
- Appendix 2. Steps to relieve a system's constraint . . . 16
- Appendix 3. Lines of communication and team size . . . 17
- Appendix 4. Growth stages of a small business . . . 18
- Appendix 5. Agile principles and operational excellence . . . 19

References **20**

Abstract

This case study examines how XYZ, a rapidly growing French tech company, applied operational excellence to sustain value delivery during its scale-up. Initially, the firm's fast expansion created complexity, inefficiencies, and quality issues that hindered customer satisfaction and productivity. A systemic analysis revealed that the engineering department had become the organization's primary bottleneck. Drawing on the Theory of Constraints and Operational Excellence frameworks, the study identifies root causes across people, processes, and management systems, emphasizing the limits of the start-up mindset and the lack of mature engineering practices. The paper proposes practical recommendations—forming cross-functional feature teams, reducing work in progress, allocating time for unplanned tasks, and applying root cause analysis—to increase throughput and simplify operations. By embedding agile and continuous-improvement principles, XYZ rebalanced performance, enhanced collaboration, and restored value delivery capacity, demonstrating how operational excellence can transform a start-up's growth into sustainable scalability.

Introduction

XYZ is transitioning from a small tech start-up to a larger organization, reporting double-digit growth over the past six years. Today, the company is experiencing difficulties in satisfying its customers' needs. This briefing aims to provide the company with recommendations on how to keep delivering value during its ongoing scale-up phase.

By law, French businesses in specific industries must collect and authenticate their contractors' legal documents or delegate this task to a trusted third-party, such as XYZ. The company offers its services through an online platform where contractors can upload their documents. XYZ's purpose is to reduce its customers' administrative burden, allowing them to focus on their core business activities.

Since its inception, XYZ has developed a strong customer-centric culture. However, the company has built the platform hastily to reduce the time to market and meet all its customers' needs, cutting corners on upfront design, simplicity and robustness.

To manage its current growth, the company has recently decided to reorganize its upper management team by adding a CFO, CTO and COO to take on some of the CEO's responsibilities.

Findings and Analysis

Current state

The following table displays the most frequent actions and behaviours within the company.

Dimension	Observation
Process	Manual, repetitive work that can be readily automated (e.g. document scanning, data extraction, trivial validation, payment)
Process	People following cumbersome processes
Process	The last issue always becoming the most urgent
Behaviours	Customer-facing staff making new promises to customers without involving other relevant stakeholders (e.g. engineers)
Behaviours	Internal customers neglected in favour of external ones
Behaviours	Employees dedicated to meeting the customers' needs and expectations
Management system	Ad hoc features, operations and processes for specific customers
Management system	Leadership team encouraging and supporting staff to take initiative
Management system	Limited interactions between the different departments

In this context of scale-up, these actions and behaviours have triggered the following emergent properties, inhibiting XYZ's main value drivers.

Emergent Property	Inhibited Value Driver(s)
Service-level agreement not met (e.g. validation time)	Compliance, Cost, Quality
Engineering department unable to deliver what is expected (features and support)	Productivity, Quality
Platform frequently failing to meet new user needs (e.g. handling documents for multi-branch businesses)	Compliance, Quality

Emergent Property	Inhibited Value Driver(s)
Bugs and downtime	Cost, Quality
Errors (e.g. wrong document validation)	Compliance, Quality
Numerous moving parts in the system	Cost, Productivity
Unused features	Cost, Quality
Poor user experience on the platform	Productivity, Quality
Frustration among employees and customers	Quality

These properties can be associated with four types of waste: defects, waiting, extra-processing and non-utilized talent.

Identifying the constraint

The observations above served as input to paint the "big picture" of the organization. It revealed that, during the ongoing scale-up phase, the main risks for XYZ come from its people and processes.

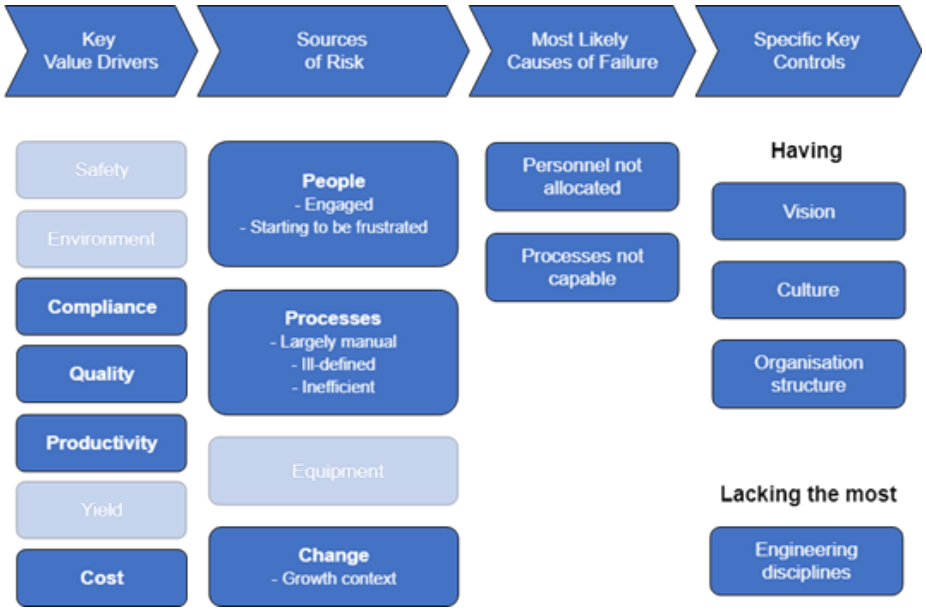

Figure 1: XYZ's integrated view.

An assessment of XYZ's key core processes highlighted the steps that do not bring value to the customers, and thus do not align with the company's purpose:

- XYZ calls the customers back after they register on the platform.
- XYZ sets up the list of required documents manually for each new customer.
- Multi-branch businesses call XYZ's support to upload their documents.

It appeared that the source of these pain points is the accumulation of work in the software engineering department, making this service the constraint (bottleneck) of the whole system.

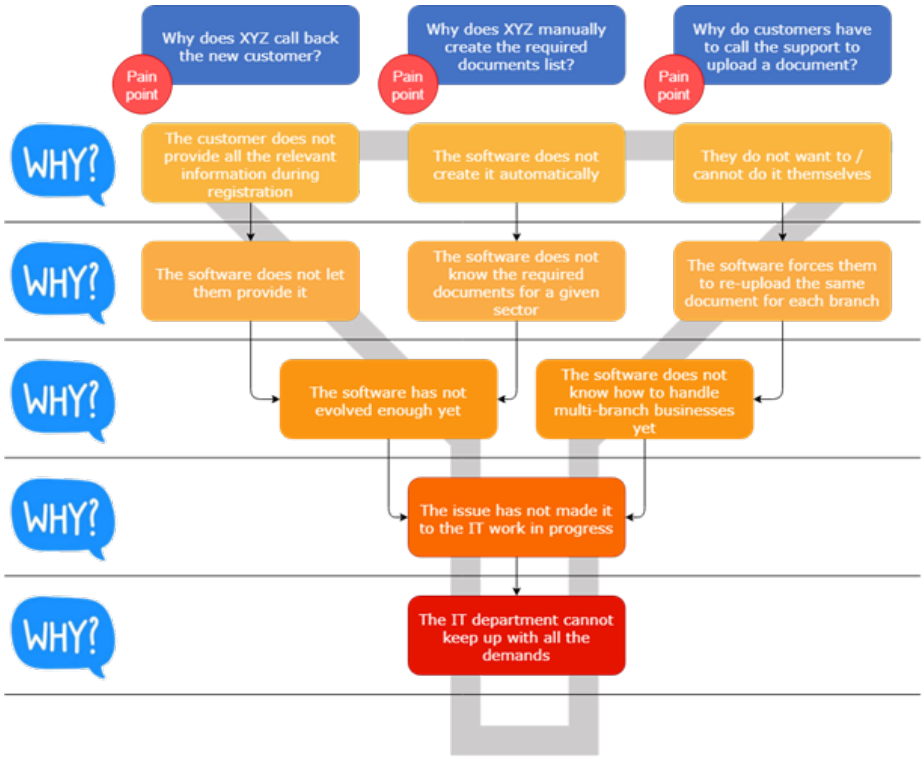

Figure 2: Pain points '5 whys' analysis.

Increasing the flow in this constraint is fit for purpose: it would enable the organization to meet demand by raising its overall efficiency. The root cause analysis of the engineering department's limitations, in Figure 3, revealed that the underlying issues span the three dimensions of operational excellence. Addressing them would, by ripple effect, mitigate the symptoms and, ultimately, relieve the constraint.

Figure 3: Root cause analysis of the constraint's limitations. The red items are the root causes to address, the orange ones are only symptoms, and the green ones are causes that have no reason to change. Source of the top-right image: excelr8-mc.com.

Start-up mindset

The "start-up mindset," encapsulated by the principle of *"move fast and break things,"* initially provided XYZ with a strong competitive advantage. It enabled rapid innovation, responsiveness, and market entry. However, as the organization scaled, this same mindset evolved into a structural barrier to performance. The emphasis on short-term gains and quick wins created a complex and fragmented system, difficult to maintain and even harder to evolve. Over time, this complexity absorbed resources, generated inefficiencies, and led to frustration among both employees and customers. XYZ's trajectory follows a well-documented pattern in which start-ups, eager to "cross the chasm," sacrifice foundational robustness for speed. To sustain future growth, the company must now transition from an opportunistic mode of operation to one grounded in **simplicity, standardization, and alignment between business and technical processes.** Reinforcing these foundations will allow XYZ to convert early-stage agility into scalable, enduring performance.

Engineering practices

The absence of robust engineering practices—rooted in a persistent "hacker mindset"—significantly limits XYZ's ability to manage growing complexity. Software development, once viewed as a secondary activity, has not evolved into the strategic core it should be. As a result, the engineering department demonstrates a low level of maturity in its approach to software development. According to Bloom's taxonomy (a framework that classifies learning and mastery into six levels, see Appendix 1), the team currently operates mainly at the analytical stage. Its focus is limited to identifying and interpreting problems rather than progressing toward the higher levels of evaluation and creation, where knowledge is used to design solutions and drive innovation. This restricted scope prevents the department from developing scalable systems, anticipating issues, and contributing strategically to the company's growth.

This underdevelopment undermines the department's capacity for innovation, quality assurance, and scalability. Furthermore, the lack of prioritization across projects introduces constant variability through context switching and shifting objectives, preventing teams from delivering value consistently. These symptoms reflect a broader systemic issue: the absence of disciplined engineering principles such as root-cause analysis, technical debt management, and continuous improvement. Without embedding such practices, XYZ will continue to generate operational waste and drift away from its fundamental purpose of delivering reliable, scalable value to customers.

Capacity

Increasing staff numbers is not the answer to support the scale-up at this stage, as it would only exacerbate existing inefficiencies. The company's immediate priority should be to **increase throughput within its current constraint** by improving workflow and process discipline (see Appendix 2). Hiring additional staff at this stage would increase interdependencies, communication overhead, and coordination costs, thereby reducing overall productivity in accordance with **Brooks' Law**, which posits that adding manpower to a constrained or delayed system further delays it (see Appendix 3).

Moreover, the current platform design does not foster customer autonomy; end users rely heavily on support teams for basic tasks, which adds to the engineering department's workload and limits its capacity to focus on long-term improvements. This dependency forms a self-reinforcing loop where capacity constraints create more reactive work, trapping the organization in a cycle of short-term firefighting. Building true scalability, therefore, requires structural simplification, automation, and empowerment, both for employees and customers, before considering any further expansion of the workforce.

Coordination

As XYZ grows, the need for effective coordination across its departments has become increasingly critical. The company is currently experiencing what the **Greiner Growth Model** defines as a *"crisis of control"*, a stage where informal communication, once sufficient during early growth, no longer supports the complexity of a larger organization (see Appendix 4). Silos have emerged between departments, and the absence of clear prioritization has led to inconsistent decision-making and misaligned objectives. These coordination gaps have created unrealistic expectations among both internal and external stakeholders, further straining the organization's resources.

The situation is compounded by the misalignment between operational pace and technical capacity: the engineering department, which is the system's primary constraint, does not set the rhythm for the rest of the organization. Instead, other departments continue to generate requests without regard for the team's actual throughput, exacerbating bottlenecks and inefficiencies. To progress beyond this critical phase, XYZ must formalize communication channels, establish shared planning mechanisms, and align cross-functional priorities around realistic delivery capacity. Achieving this coordination will enable the organization to move from reactive firefighting to proactive, synchronized execution, an essential step in scaling sustainably without losing agility or customer focus.

Discussion

XYZ's case exemplifies the tensions that arise when a start-up evolves into a scaling organization without redesigning its operational foundations. The company's early agility, rooted in the "move fast and break things" dynamic, created a strong competitive advantage during its formative years. However, as the system grew in size and complexity, the same mindset began to hinder performance. Short-term improvisation replaced strategic process design, leading to fragmentation, technical debt, and resource inefficiency. This transition marks a common inflection point in organizational development, where the behaviours that once fostered innovation become structural constraints.

The analysis reveals that the company's core bottleneck lies within its engineering function, whose limited process maturity and reactive culture restrict throughput. A lack of prioritization and consistent technical discipline has led to frequent context switching and unpredictable outcomes. These conditions have introduced systemic waste and variability, weakening both reliability and customer satisfaction.

Furthermore, coordination challenges have emerged as a defining characteristic of XYZ's growth phase. Informal communication and siloed decision-making no longer support the demands of a larger, more interdependent organization. The resulting misalignment between technical capacity and business expectations has amplified inefficiencies and eroded performance consistency.

Viewed through the lens of operational excellence, these findings highlight a broader organizational principle: sustainable scalability depends on stable, standardized, and continuously improving processes. XYZ's experience thus reflects a universal challenge for high-growth companies: how to transform entrepreneurial agility into disciplined, repeatable excellence without losing the innovative culture that enabled their initial success.

Recommendations

To maintain value delivery during its scale-up phase, XYZ must focus on increasing the throughput of its engineering department. This requires adopting the principles of *agile software development*, which represent the application of operational excellence to software engineering (see Appendix 5). Agile principles provide a structured yet flexible framework for improving flow, prioritizing value, and reducing waste. A solid understanding of these principles is therefore essential for implementing the following recommendations effectively and efficiently.

Forming feature teams

Development teams should remain small and cross-functional to ensure agility and effective communication. Following the so-called "two-pizza rule" (i.e. each team should be small enough to be fed with two pizzas), the optimal size is around five or six members. Each team should also include representatives from other key departments who bring deep business knowledge, ensuring that technical decisions remain aligned with customer needs and organizational priorities.

Expected effects

- Enhancing communication (breaking the **silos**)
- Reducing the feedback loop
- Simplifying interactions
- Improving the teams' autonomy
- Ensuring outcomes meet customers' needs

Allocating time for unplanned work

Development teams should allocate a fixed share of their capacity (approximately 25%) to accommodate unplanned activities, including urgent bug resolution, maintenance operations, and other unforeseen priorities.

Expected effects

- Limiting unexpected context switching and interruptions
- Avoiding working at full capacity (where any new unplanned task automatically replaces an ongoing one)

Reducing work in progress

A dedicated **product team** should be established to manage and streamline the flow of incoming work. This team would be responsible for filtering all incoming requests, such as bugs, feature enhancements, and support tickets, prioritizing the most critical ones for immediate handling by development teams, and maintaining a **prioritized backlog** for all other items.

Development teams would then handle urgent requests within their pre-allocated capacity for unplanned work, while pulling regular tasks from the backlog in order of priority. Their focus should remain on completing ongoing tasks before starting new ones and on releasing deliverables frequently, as work in progress provides no value to users.

Expected effects

- Reducing lead time
- Limiting work in progress (*"start finishing, stop starting"*)
- Increasing reactivity

Applying engineering methods

Given its comprehensive view of all documented system issues, the product team should conduct regular review sessions to identify and address recurring problems. These reviews should include systematic root cause analyses using techniques such as the Five Whys to trace underlying issues, as well as Pareto analyses to determine which problems occur most frequently and have the greatest overall impact on performance.

Expected effects

- **Prioritizing** the work
- Fixing root causes (removing the "**start-up mindset**")
- Simplifying the system continuously
- Reducing waste (e.g. rework)
- Fostering technical excellence to make sure the same class of issues never reappear

Monitoring improvement

Finally, XYZ should rely on these metrics to follow up on the system's improvement after implementing the recommendations.

Customer dimension

- Autonomy Score: Number of support requests per month
- Effort Score: "How hard is it to use the platform?"
- Satisfaction Score: "How would you rate your overall experience with the platform?"
- Churn rate: Lost customers over a year/month

Staff

- Effort Score: "How hard is it to do your work?"
- Motivation Score: "How satisfying is your job?"
- Turnover: Lost employees over a year

System

- Lead time: The time between a task's beginning and delivery
- Release rate: Number of releases per month
- Defect rate: Number of bugs per month

Once the constraint is relieved, XYZ should reassess the system and plan for further improvements if required.

Conclusion

XYZ's challenges demonstrate that growth alone does not guarantee performance. Sustaining value during scale-up requires disciplined execution, simplified processes, and alignment between strategy and operations. By integrating operational excellence principles and strengthening coordination across teams, the company can transform reactive problem-solving into proactive improvement, turning rapid growth into an enduring competitive advantage.

Appendices

Appendix 1. Bloom's taxonomy

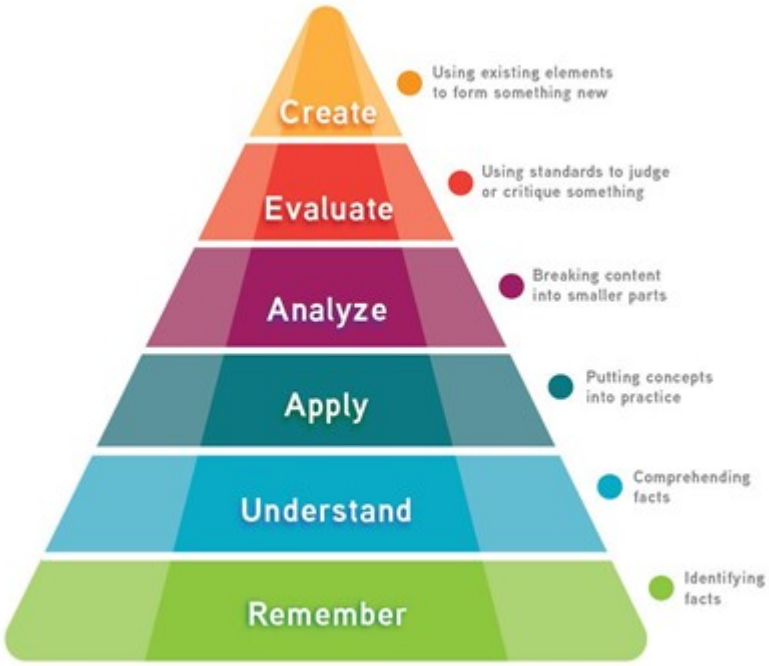

Figure 4: Bloom's taxonomy. Source: elearningindustry.com.

Appendix 2. Steps to relieve a system's constraint

Figure 5: Theory of constraints continuous improvement cycle.

Appendix 3. Lines of communication and team size

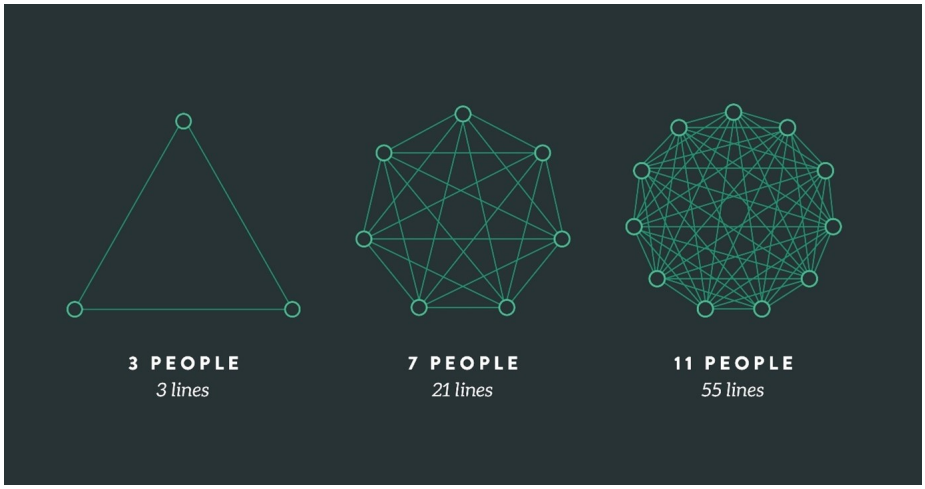

Figure 6: Communication overhead depending on the team size. Source: leadingagile.com.

Appendix 4. Growth stages of a small business

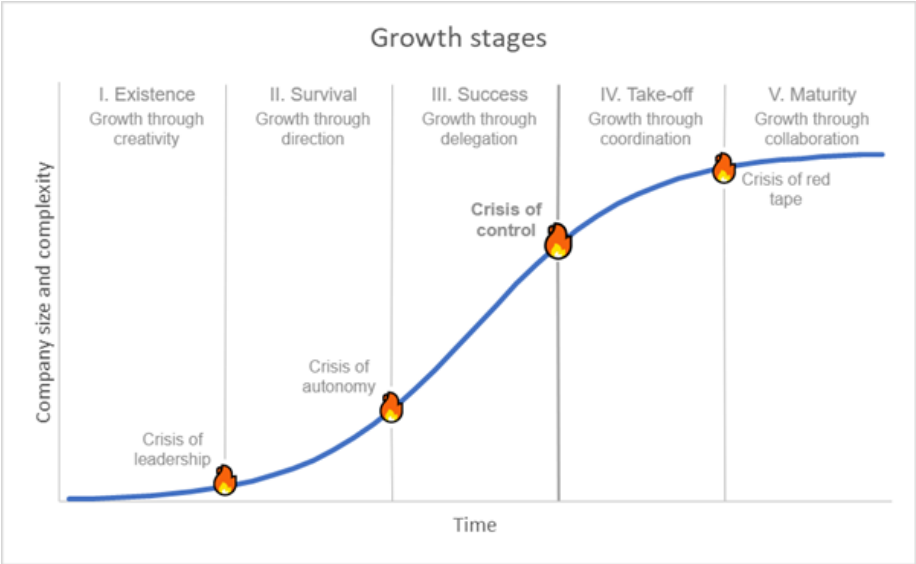

Figure 7: Growth stages of a small business (Greiner's curve). Source: adapted from hbr.org.

Appendix 5. Agile principles and operational excellence

Figure 8: Relationship between the Agile software principles, the Operational Excellence Management System (OEMS) elements and XYZ's value drivers. Source: adapted from wilsonperumal.com.

References

Barbier, L. (2016, October 21). *How to Measure Customer Satisfaction, and Why It's So Important*. Aircall. https://aircall.io/blog/customer-happiness/how-to-measure-customer-satisfaction/

Beck, K. (2001). *Principles behind the Agile Manifesto*. Agilemanifesto.org. https://agilemanifesto.org/principles.html

Bussgang, J. (2015, January 13). *Scaling the Chasm*. Seeing Both Sides. https://seeingbothsides.com/2015/01/13/scaling-the-chasm/

Chowdhary, M. (2009). *Constraint Management: Throughput, Operating Expenses and Inventory*. Global India Publications.

Churchill, N. C., & Lewis, V. L. (1983, May). *The Five Stages of Small Business Growth*. Harvard Business Review. https://hbr.org/1983/05/the-five-stages-of-small-business-growth

Employees from different services, XYZ, personal communication. (2019, October 12).

ExcelR8. (2013). *Operational Excellence (OpEx) Definition*. ExcelR8 Management Consulting. http://www.excelr8-mc.com/ART/operational-Excellence-ART.htm

Fuqua, A. (2014, January 28). *The Theory of Constraints and Brooks' Law*. Leading Agile. https://www.leadingagile.com/2014/01/theory-constraints-brooks-law/

Garvin, D. A. (1991, December). *How the Baldrige Award Really Works*. Harvard Business Review, 80-91.

Go Lean Six Sigma. (2012, February 10). *8 Wastes*. Go Lean Six Sigma. https://goleansixsigma.com/8-wastes/

Harnish, V. (2019, August 16). *Will Your Startup Ever Scale Up? Here's What You Need To Know*. Growth Institute. https://blog.growthinstitute.com/scale-up-blueprint/startup-to-scaleup

Haslam, J. (2018, May 8). *From Startup to Scaleup*. IE University Insights. https://www.ie.edu/insights/articles/from-startup-to-scaleup/

Hern, A. (2018, April 24). *The two-pizza rule and the secret of Amazon's success* . The Guardian. https://www.theguardian.com/technology/2018/apr/24/the-two-pizza-rule-and-the-secret-of-amazons-success

Jones, J. (2015, October 18). *Managing Complex Change: Summary and Review*. Embracing Adversity. https://johnathonjones.wordpress.com/2015/10/18/managing-complex-change-summary-and-review/

JORF. (2014, September 26). *Décret n° 2014-1097 portant mesures de simplification applicables aux marchés publics*. Journal officiel de la République française. https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000029504714

Klein, K. (2006, June 14). *Is Your Team Too Big? Too Small? What's the Right Number?* Wharton University of Pennsylvania. https://knowledge.wharton.upenn.edu/article/is-your-team-too-big-too-small-whats-the-right-number-2/

Olesen, A. (2016). *Buurtzorg: Humanity Above Bureaucracy*. Beyond Budgeting Institute, London. https://www.soignonshumain.com/app/download/8970473/Case+Report+-+Buurtzorg.pdf

PWC. (2017, November 18). *From startup to scale-up: Five ideas for growing businesses*. PWC SME Solutions. https://www.pwc.co.uk/ux23/blogs-vlogs/start-up-scale-up.html

Seifert, C., & Stallbaum, S. (2013). *Achieving Operational Excellence in the Face of Complexity*. Wilson Perumal & Company's Vantage Point, 2013(2). https://cdn2.hubspot.net/hubfs/2088178/Wilson%20Perumal%20Nov2016%20Theme/PDF%20Link/Vantage_Point_2013_Issue2.pdf

Shingo Institue. (2014). *The Shingo Model*. SAPartners. http://sapartners.com/wp-content/uploads/2014/04/ShingoModelHandbook.pdf

Societe.com. (2019). *XYZ Financial reports from 2011 to 2019*. Societe.com. https://www.societe.com

Statt, N. (2014, April 30). *Zuckerberg: 'Move fast and break things' isn't how Facebook operates anymore*. CNET. https://www.cnet.com/news/zuckerberg-move-fast-and-break-things-isnt-how-we-operate-anymore/

Wilson Perumal. (2013, May 31). *Foundations of the 7 Element Operational Excellence Management System: Key Controls & the 7 Elements*. Wilson Perumal.: https://www.wilsonperumal.com/blog/blog/foundations-of-the-7-element-operational-excellence-management-system-key-controls-the-7-elements