Case Study:

Leveraging the 7Stones Framework™

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SUMMARY

A *frustrated* CEO felt like he was being held hostage by his technology and its inability to deliver on his goals for the company. The 7Stones **Framework™ was u**sed to evaluate and transform the development process for new and existing products. Subsequently, the next project was delivered with far fewer issues and higher quality.

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Background

From operations to products and services, every company today is enabled by technology. Business is evolving at an ever-increasing pace. With it, there is an ever-increasing disconnect between company objectives and the teams of people delivering on the promises of technology.

> *Information technology and business are becoming inextricably interwoven. I don't think anybody can talk meaningfully about one without talking about the other.*
>
> *-Bill Gates*
>
> *Co-Founder & former CEO of Microsoft*

ROOT CAUSE ANALYSIS

Root Cause Analysis (RCA) tries to solve problems by identifying the root cause of outcomes as opposed to addressing the known symptoms. It starts by defining the problem, gathering evidence, asking "why" each step happens in the sequence of steps leading to the problem. Actions are suggested to correct the root cause.

The frustrated CEO of a company was facing the future with a level of uncertainty. After 20 years of the company experiencing cycles of growth and contraction, it found itself in a precarious situation:

- Unique opportunity: market forces were aligning with the company's core competencies
- Limited budget: the available budget only allowed a limited strategic investment
- Unproven capabilities: key decision makers feared their inability to pursue the opportunity due to historical challenges

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Client

The client provided its services as a benefit to the employees of large corporations. The services were delivered via custom-built software. As is often the case with software, the home-grown solution had become stale over years of neglect and a general lack of company focus. Additionally, the concept and design of the software had too little flexibility for new ideas and markets. This left the organization in a common position of maintaining a list of enhancements which never seemed to get attention.

The board of directors had tasked the CEO with reducing costs and halting sliding revenues. After some staffing "adjustments" and cost reduction measures, the mandate was clear: conversion rates were abysmal, the product looked dated, and critically broken features needed to get resolved.

A new product was needed to leverage the company's market position in hopes of taking advantage of new opportunities. The budget was approved by the board to be spent at the CEO's discretion to move the company to a new level of success.

> " *Many people see technology as the problem behind the so-called digital divide. Others see it as the solution. It is neither. Technology must operate in conjunction with business, economic, political and social systems.* "
>
> *-Carly Fiorina*
>
> *Former CEO of Hewlett-Packard*

Unfortunately, the CEO faced several challenges to meeting his objectives. Nothing seemed to be getting accomplished on new product development by the technology team. There was no confidence in the delivery schedule and the current website was still outdated and "clumsy". As well, the morale of the entire company was sinking along with the revenues.

Challenge

The CEO had separately received a complaint from each of the decision makers in the company. They all agreed the problem was the technology team and specifically its leadership. Every request was met with the friendly response, "that should take about three weeks." But, little was getting accomplished.

The technology team was following a process they claimed as *Agile*. Although the technology team was working diligently, priorities were often changing and the team was not able to deliver on the company expectations.

The CEO had become frustrated, yet still believed in his employees; they were talented people and genuinely seemed to care about the success of the company. He was also given credible reasons for the different challenges between the Technology team and others in the company.

> " *Leave no stone unturned to help your clients realize maximum profits from their investments.* "
>
> -Arthur C. Nielsen
>
> *Founder ACNielsen Company*

Considering the current difficulties and slipping timelines, the CEO decided to outsource the development of the new product. Only the technology team would be outsourced. All other responsibilities would be performed with current departments.

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We have a technology problem!

   Nobody in the company feels they can <u>trust</u> IT anymore.

Nothing is getting delivered!

   Promises are made and routinely missed.

We hired good people, but…

   It seems we continue to dig a deeper and deeper hole.

To move forward, it was critical to separate the symptoms from the underlying problem(s). Although the obvious culprit was thought to be the Technology team, it was important to analyze the problem holistically. To separate emotions from the actual process, the 7Stones Framework™ was chosen as the evaluation tool.

By stepping through each aspect of the framework, final conclusions were not provided until the entire picture was assembled. Only then did the root cause become apparent and a solution identified.

The 7Stones Framework™

Each one of the elements (stones) within the framework identifies a core aspect of technology. These stones are used to evaluate the integration of technology into a business. The successful integration of technology applies no matter the industry or size of the business.

Each stone is reviewed to determine the level of maturity within a business. This simplifies the discovery of skills gaps, communication disconnects and other factors slowly eroding quality and trust across a company.

- **Culture** – How is technology perceived across the company?
- **Domain** – How is the business "expertise" captured?
- **Methodology** – How are the priorities of the business aligned?
- **Process** – How are processes defined and is there potential for automation?
- **Visibility** – How is the business consuming the data?
- **Validation** – How are the system functions verified against the business goals?
- **Continuity** – How will the system react to predictable *and* unpredictable challenges?

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Analysis

A summary of the findings discovered using the 7Stones Framework™:

Culture	All requests were being prioritized and filtered by the technology team – a classic example of the tail wagging the dog. The business decision makers should own the company priorities.
Domain	The company had developed a habit of very loose requirements and product definition. This created a great divide in what was being delivered compared to what was needed.
Methodology	As is common, the company considered themselves *Agile*. Upon further review, many of the key processes of the methodology (e.g. automated unit testing, regular refactoring, etc.) were not being followed.
Process	The process of releasing software was a slow communal effort. Because of the lack of governance, previously resolved issues were regularly re-introduced.
Visibility	The company processed typical accounting functions (AR & PR) from manually run queries – without a proper audit or cross check of data. Monies were charged and paid per reports which eventually were found to have flaws.
Validation	The company had hired one person who was dedicated for testing all applications. Unfortunately, the applications had grown in complexity and breadth without the benefit of test automation; therefore, regression testing was at a minimum if at all.
Continuity	Although operating on a lean budget, the company was functioning on aging hardware and many single points-of-failure. With current sales slipping, the risk of losing more clients far outweighed the cost of investing in best practices.

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Recommendation

The following are two examples provided to the client based on the 7Stones Framework™:

DOMAIN: The company had a habit of poor technical specifications and documentation.

Observation: Capturing the domain (knowledge) of the business is critical to achieving the desired results. The company delivered inadequate or inaccurate documentation to the technology team. The technology team provided estimates from the same documents to find themselves missing timelines or delivering poor results.

Recommendation: The company needed a minimally intrusive method to capturing complete requirements. Adding business flow diagrams and other simple specifications would communicate the requirements better and give something to validate. The technology team also needed time to adequately architect solutions and reject requests if not clearly specified - as they were now being held accountable for their delivery estimates.

CULTURE: The client created and delivered their services via the Internet.

Observation: Each department submitted requests directly to the technology team. The head of technology responded with estimates for each request. Unfortunately, the estimates did not consider priorities for the business and conflicts with other commitments. The departments were all disenfranchised as technology focused on the "squeakiest wheel" first.

Recommendation: The business needed to take control of the company's priorities. Before delivering requests to technology, the decision makers needed to understand the list of all pending requests. They needed to decide the order of business priority before handing the list to the technology team. Additionally, the technology team needed to be held accountable for delivering on their promises and communicating when things were not on schedule.

Results

The client had decided to implement the recommendations on a critical project. The technology team was busy with the release of a legacy product (horribly late and missing critical features); therefore, the opportunity to test the recommendations was on the outsourced initiative. This project was already started with minimal (inadequate and inaccurate) requirements and a fixed delivery date.

The following changes were immediately pursued:

- The business prioritized the order in which features were to be delivered
- The requirements and architecture were revised
- The product development followed an *Agile* methodology
- The product was released to production using automation scripts
- Reports and data exports were audited then used to validate test cases
- Complete test scenarios (positive and negative) were created
- The environment was designed for scalability and resiliency

The product was delivered within the tight schedule - not all the desired features made it for launch though. As the project started prior to beginning this process, the requirements and even breadth of the project were not clearly defined or understood before beginning the development. This caused a few missteps in the beginning.

Fortunately, the modifications to the process had dramatic results. The minimum viable product (MVP) was fully tested and delivered on time with very few problems. The features were developed and delivered as guided by the business. Lastly, the remaining features were already under development when the product launched providing the CEO an opportunity "sell" the future.

Conclusion

After interviewing personnel from all departments of the company as outlined in the 7Stones Framework™, it became clear the problems were not exclusively "technology problems". In fact, the root problem was related to product development and how technology integrated into that process.

Core to resolving the issues was educating people about best practices for product development. Everyone needed to understand their role and accountability as well as how to best collaborate. As clearly demonstrated through the launch of the new product, the old way of doing business was no longer an acceptable way to conduct business.

" *Coming together is a beginning; keeping together is progress; working together is success.* "

-Henry Ford

Founder Ford Motor Company

Although every company is unique with its own set of challenges, this scenario played out in about four months. The process changes so clearly led to the successful launch of the new product, the CEO convinced the board to further approve a budget for replacing the remaining legacy products.

This is a demonstration of benefits of the 7Stones Framework™ as used by an experienced professional performing root cause analysis.

About

7Stones Consulting helps companies create a technology vision and build a strategy to achieve it. We guide companies who feel *stuck* to reach new levels of sustainable growth and increased profits.

Strategies are about identifying a future target and developing the map to traverse from today to that future; however, many companies struggle in identifying the exact technologies and the best approach.

Too often, companies focus on the technology first or they jump to a specification. Even worse, some companies try to be *agile* and start building products right away. It is critical that every member of your company aligns with a common understanding of the outcome first. This is not a technical view, but from the eyes of the business.

As a virtual CIO or as a partner to your technology team, 7Stones Consulting helps you challenge conventional thinking within your company. We have created the 7Stones Framework™ as an established way to review all aspects of your company before making any recommendations or suggesting a solution.

7Stones Consulting uses a consistent approach to gain a holistic understanding of the needs of the business. We have created exclusive methods to model and map your company - bridging the gap between business and technology. With a clear definition, it is possible for companies to become nimble and react quickly to market changes.

7Stones Consulting helps create a clear technology vision. This provides a map to follow towards growth and innovation as well as capture market opportunities in the future.

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