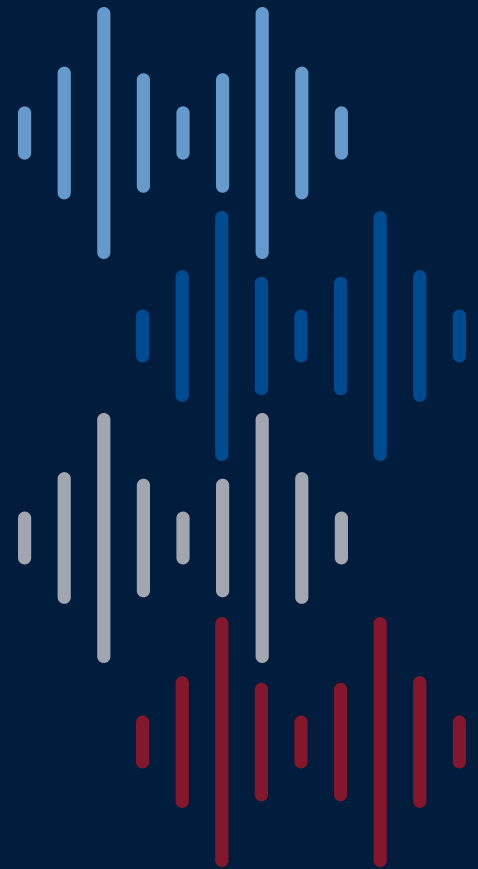


# 3 Disciplines for Project Success



## Preface

*This white paper is one of many case studies on projects that had yet to go as planned. Under a sub-category, Must-Have Strategies Revealed for Lean Six Sigma; this paper intends to raise awareness of the importance of the three disciplines required for project success. Little of this information is new. It's not cosmic or procedurally Earth-shattering. However, I intend to walk through some project details, including what a project means, who does what, defining a successful project, the reality that projects fail, the importance of all three disciplines, and how you can apply this to your next or current project.*

## Understanding Projects

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Let's begin by defining what a project is. Projects are temporary endeavors with a specific start and end, rather than being ongoing or spanning multiple generations. While initiating a project is often straightforward, bringing it to a successful close can be more challenging. Each project has a clear objective that needs to be achieved.

There are various types of projects, such as LSS, DMAIC, CPI, BPI, PI, CI, BPR, OCR, CMIP, PPM, Kaizen, PMLC, 5S/6S, 10-Step, 8-Step, and 6-Step PPSM, among others. Despite the differences in terminology, the principles we discuss can be applied to most, if not all, projects.



### Denver International Airport

In 1992, at an original cost of \$238M, the Automated Baggage Handling System was installed at the new Denver International Airport (DIA). At 17 miles of track and viewed as the cutting-edge in airport baggage system, this project was intended to raise the bar in both modernization and efficiency. Within 16 months, another \$560M was spent due to problems with its performance causing misdirected, delayed, and damaged baggage. By 2005, the entire system was scrapped due to rising costs and maintenance issues. In November of 2022, 30 years later and with a proposed cost of \$500M, the Denver City Council is looking to bring it back to life.

# Roles in a Successful Project

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A triumphant project incorporates three essential disciplines: Project Management, Process Improvement, and Change Management. Each plays a crucial role in achieving the desired outcome.

## 1 Project Management:

This discipline is in charge of strategizing, organizing, and executing the project. It ensures that the project progresses efficiently and effectively from start to finish.

- Planning, procurement, execution and project completion
- Follows PMBOK® Guide and policy
- Variety of certification types, experience levels & industry specifics
- Requires organization, teamwork & attentiveness
- Focuses on scope, budget, and deadlines ensuring and keeps track of all things milestone related

## 2 Process Improvement:

This area focuses on examining and enhancing existing processes to align with the project's objectives. By streamlining operations, the project can achieve its goals more efficiently.

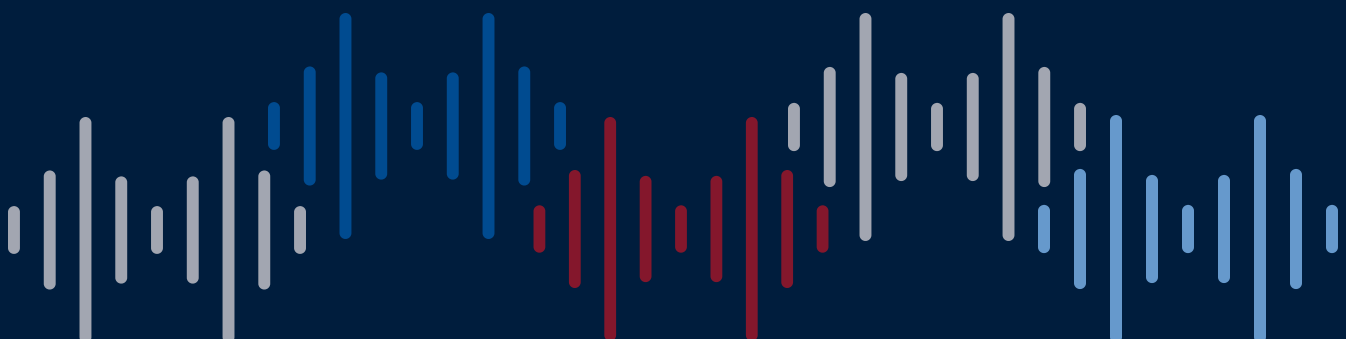
- Leads, analyzes, structures & coaches business improvements.
- Applies CPI/LSS tools/ techniques via IASSC, ASQ, etc.
- Increasing levels of certification leads to advanced project types.
- Wears multiple hats throughout.
- Insists on gaining efficiencies and improving the way business is done.

## 3 Change Management:

This discipline concentrates on facilitating the smooth implementation of the project, particularly concerning the human aspect. It guarantees that the organization embraces the necessary changes without any significant disruptions.

- Leads, analyzes, structures & coaches business improvements.
- Applies CPI/LSS tools/ techniques via IASSC, ASQ, etc.
- Increasing levels of certification leads to advanced project types.
- Wears multiple hats throughout.
- Insists on gaining efficiencies and improving the way business is done.

For a project to succeed, these three disciplines must collaborate cohesively and harmoniously.



# Defining Success

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**A successful project meets its objectives within the defined timeframe and budget while improving the organization's performance.** It should also positively impact stakeholders, such as customers, employees, and shareholders. It is important to note that success is not just measured by meeting project goals but also by how well the project is received and adopted by the organization.

Whether it's an ROI or KPI deviation, or 101 if not 1,001 other measuring sticks, as is said, it **'must be measured.'** This is discussed in the Measure Phase of DMAIC, the Plan phase in PDCA, and within Step 2 in PPSM or 8-Step A3 style problem-solving approach. We can turn to our metrics, dashboards & stats. Yet ultimately... who gets to say, "That's a successful project?" Is it the customer? The stakeholder? What about the project lead or LSS/CI' belt'? Everyone? What could go wrong, right? Finally, do you believe your gut or intuition is a viable measuring tool?

## Reality: Projects Fail

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**The Automated Baggage Handling System at DIA shows that projects can and do fail.** However, failure is not necessarily a bad thing. Failure can lead to valuable lessons learned that can be applied to future projects. It is critical to identify the root causes of failure and take corrective action to prevent similar issues from happening in the future.

What is a 'failed project'? Now, when we say failure... We're talking about a project that has Stopped, Is on hold, is Slow, or maybe the worst, is Disengaged. Not all, yet many do. They say that you can't talk about "failure." No one sets out to fail. Sometimes, as my friends over at the **"Chopped"** Food Network series stated, you need to make do with 'what's in the basket.'

We typically hear that projects fail for these reasons:

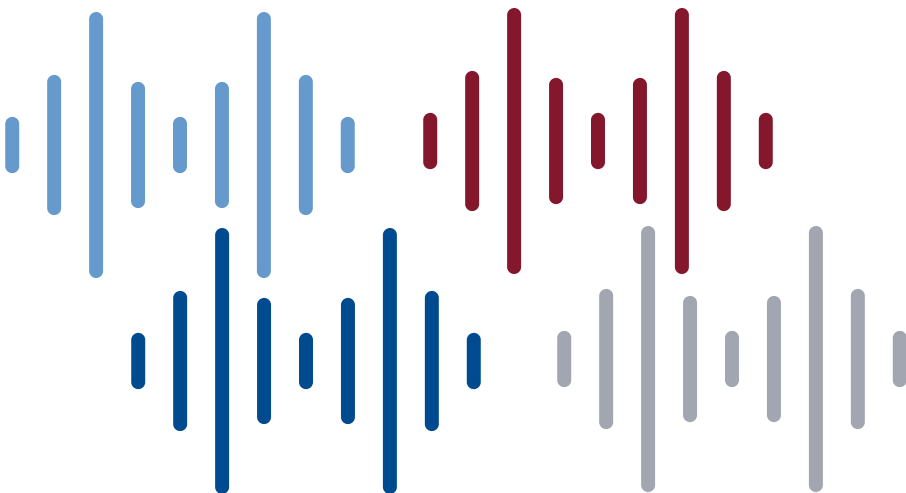
- No kaizen spirit
- No special focus on quality
- No continuous flow cells
- No visualization of lead-times
- Process inputs not well-understood
- Sampling mixed up variability sources
- No thought to a reaction plan
- Lack of clear purpose and goals
- Inability...
- Ineffective...
- Lack of...

*Just to name a few.*



Now, to take it up a level, a few years ago The International Journal of Quality & Reliability Management released the study [\*Critical Failure Factors of Lean Six Sigma: A Systematic Literature Review\*](#). They reviewed 56 published papers to find the common failures with LSS design and approaches. Over a 20-year period, 34 factors were identified. These are the top 15:

1. Lack of top management attitude, commitment & involvement
2. Lack of training & education
3. Poor project selection & prioritization
4. Lack of resources (financial, technical, human, etc.)
5. Weak link between CI projects & strategic objectives of the Org.
6. Resistance of culture change
7. Poor communication
8. Lack of leadership skills and visionary & supportive leadership
9. Lack of consideration of the human factors
10. Lack of awareness of the benefits of Lean/Six Sigma
11. Wrong selection of Lean/Six Sigma tools
12. Narrow view of LSS as a set of tools, techniques & practices
13. Lack of understanding of the different types of customers/VOC
14. Lack of employee engagement, participation, or team autonomy
15. Lack of process thinking & process ownership



# The Importance of All 3

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This leads us to a couple questions, starting with “So what?” Or maybe a better one could be, “Where do we go next?”

I’d like to propose the power of three! I’m talking about those three disciplines we spoke of earlier. I’d like to propose that those 3 disciplines are like a tripod! A tripod is supported at the top by 3 legs, all 3 are needed, they serve a balanced purpose, and typically each of those legs are adjustable. Balanced and disciplined.

As always, projects come in all sizes, and in many cases, a variety of increasing complexity. An example would be when more team members are added, or timelines are changed during or just prior to a project’s start.

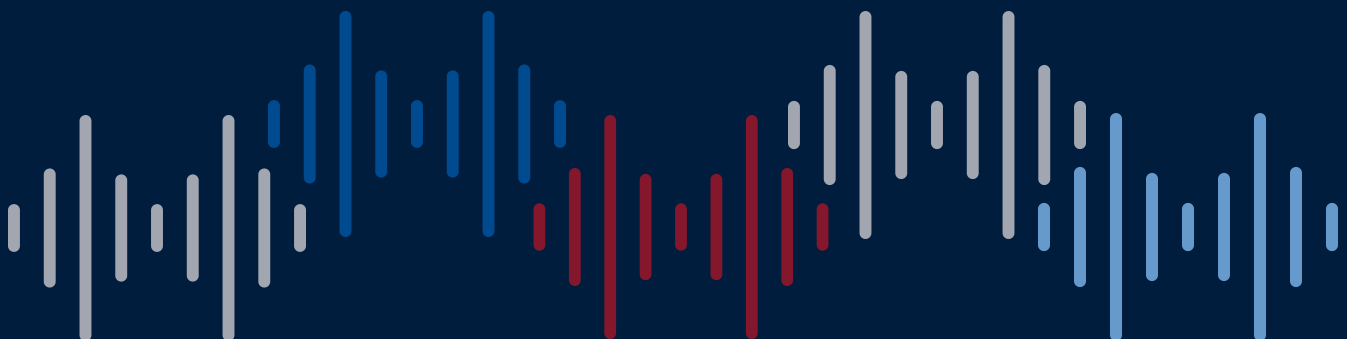


As we look at the elements, we find the following: our projects sit atop those 3 legs, or as we said before, disciplines. The PM, OCM and PI at the foundation. Yet you quickly notice, our project leader is in the middle, acting as the gimble constantly pivoting to ensure the project is on track.

However, when one of those disciplines are weak, or coming up short, it is that project leader who tends to be left to do their very best to keep the project level.

This is the point where you begin to recognize the need for some important questions. What are the risks? How long can that project leader maintain such balance? What is the effect on quality?

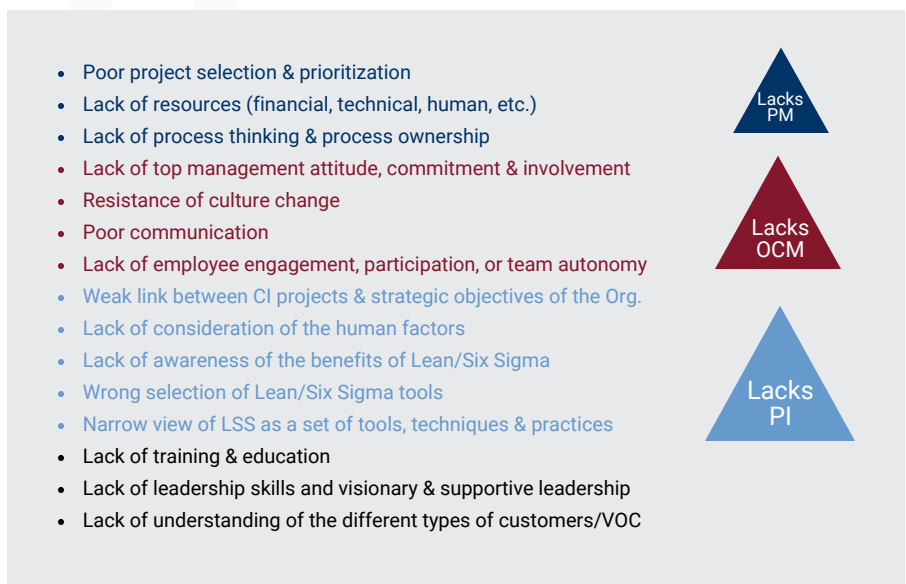
As I mentioned, this is not a new methodology, nor a simple checklist. However, what I intend to impress upon you is that as you prepare for, drive through, or find yourself in the middle of that struggling project, remember the following...A tripod needs those three legs to maintain balance, just as your project needs three specific disciplines, the Organizational Change Management discipline, the Project Management discipline, and the Business Process Improvement discipline.



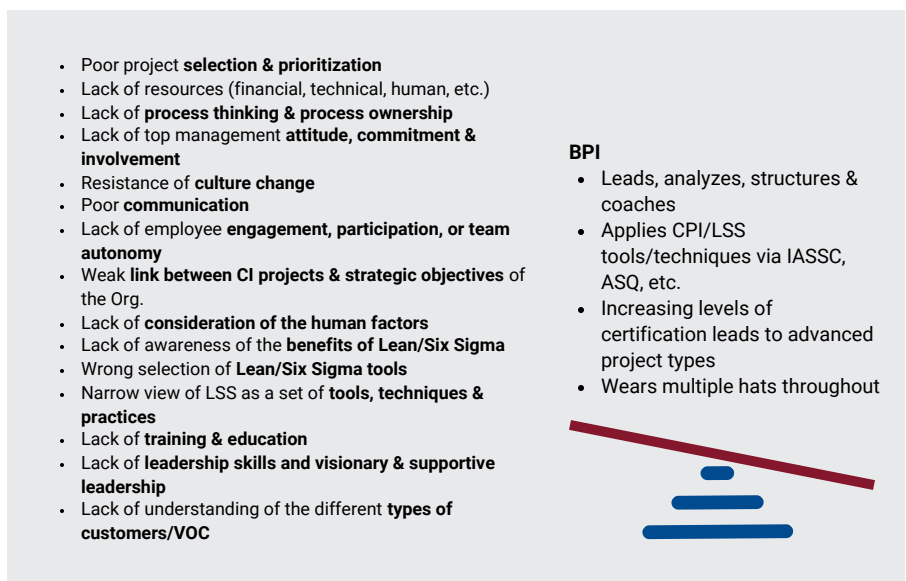
Let's apply this to that list of the top 15 common failures mentioned earlier. Using some color coding, we begin to see clarity. Poor selection, prioritization & resources gets the PM tag, while culture change, communication & engagement gets the OCM tag.



To take it one step further. With this we see a weighted scale of those top 15, and how the responsibilities could be assigned.



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# Key Takeaways

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1. Not every project requires an overly skilled title to be successful; however, ensuring the right disciplines are there is.
2. Close the 'knowing – doing' gap by recognizing the need early, then apply these disciplines throughout your project.
3. Project teams are powerful, unleashing their creativity by increasing probability success thru effective utilization of all three disciplines.

# Conclusion

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In conclusion, project success requires the involvement of project management, process improvement, and change management. It is important to define clear objectives, identify potential risks, and work together seamlessly to ensure project success. Failure is not necessarily a bad thing, but it is important to identify the root causes and take corrective action to prevent similar issues from happening in the future by recognizing them early. By applying these principles to your next or current project, you can improve your chances of success.



As Taiichi Ohno once stated,

“Progress cannot be generated  
when we are satisfied with  
existing situations.”



# About the Authors

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Darren Long is an Advisory Consultant and process-related practitioner for MSS Business Transformation Advisory (MSSBTA), a management consulting firm based in Phoenix since 1986.

Darren served the United States Air Force in both enlisted ranks, then officer ranks for over 20 years. His experience includes aerospace/airport operations, aircraft maintenance, continuous process improvement, after-action analysis, and numerous leadership roles during his career.

Darren also holds a Lean Six Sigma Black Belt, a B.S. in Professional Aeronautics from Embry-Riddle Aeronautical University, and an MBA with Leadership Emphasis from Grand Canyon University.

He is a father to two daughters, a husband to his bride of over 30 years, and a proud patriot.



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Travis Cunningham is a Change Management Consulting Manager for MSS Business Transformation Advisory (MSSBTA).

Travis has over 20 years of experience leading organizational change, managing projects, and implementing new systems and processes. He has led the Organizational Change Management (OCM) efforts on a large ERP implementation, corporate mergers and acquisitions, and many other projects. He has experience working with Fortune 500 companies, small business, utilities, government, and non-profits.

Travis has ten years of experience in Human Resources (HR) including managing HR projects, developing HR strategic plans, and improving organizational performance.

Travis has an MBA in Management from Western International University and a BSE, Electrical Engineering from Arizona State University. Travis also holds a Six sigma Green Belt, is a Prosci® Certified Change Practitioner and a Senior Certified Professional for the Society for Human Resource Management (SHRM). He currently serves on the Board of the Arizona Chapter of the ACMP.

He is a devoted family man with eight children and an amazing wife of over 18 years.



Travis Cunningham  
Consulting Manager

