

# 8 Pitfalls In The Data-Driven Decision-Making (DDDM) Process

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*I write about how to drive more value with data and analytics.*

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Data-driven decision-making (DDDM) is a process that can be derailed by many potential pitfalls. SIMONKR | ISTOCK

Most organizations have invested heavily in using data to enhance the quality of their decision-making process. Data-driven decision-making (DDDM) is the process of using data or facts to inform decisions rather than just relying on intuition, observation or guesswork. On a daily basis, multitudes of business decisions are made across an organization—from the executive boardroom down to the frontlines with customers. If more of these decisions can be guided or informed by data, the promise of DDDM means organizations will be able to make better decisions more confidently, more frequently and with better outcomes.

Recently, I was discussing DDDM with an analyst who had worked at an oil and gas company that shipped its products throughout North America via rail. While it's most

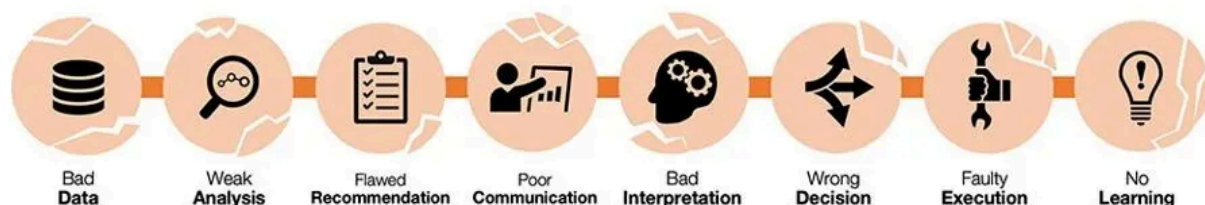
common to hear how bad data led to poor decisions, he shared an example of how good data still led to a costly mistake.

After reviewing data on its rail fleet, a newly hired manager at his company believed he could reduce costs by offloading some of its leased railcars. The management team thought he had correctly analyzed the data—but he hadn't. In his haste to deliver a short-term win at his new company, the manager failed to properly factor in future demand. When demand rose a year later, they were forced to lease more railcars at much higher lease rates. The flawed analysis led to millions of dollars being wasted in offloading perfectly good railcars.

As this example shows, data-driven decisions may not always be successful even when there are no issues with the data in terms of quality or relevancy. After reflecting on what happened with this railcar leasing scenario, I realized there are several failure points where the DDDM can break down and not deliver on its promise of generating better results from smarter decisions.

Rather than simply assuming the mere presence of data is all that's required to make better decisions, I'm going to highlight eight pitfalls in the DDDM process where things can go wrong:

## 8 Pitfalls in the Data-Driven Decision-Making Process



There are at least 8 potential failure points in the Data-Driven Decision-Making Process that you must be mindful of.  
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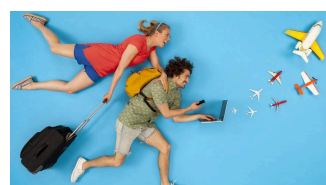
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1. **Bad data.** For DDDM to have a positive impact on your business, the underlying data must be both reliable and relevant. If no one trusts the numbers or the data is

misaligned with your business strategy, you have a fundamental problem that will completely undermine the rest of the DDDM process. Without proper oversight of the quality and relevance of your data, DDDM will be plagued with ongoing issues and will struggle to have any impact.

2. **Weak analysis.** With the necessary data in hand, you next need to be able to analyze it properly. With the introduction of self-service analytics, more people are able to analyze data with little to no analysis experience. However, without adequate training and support from analytics teams, the analysis performed may lack the necessary depth, thoroughness and accuracy to be useful and avoid problems.
3. **Flawed recommendation.** After an analysis uncovers an insight, it must be paired with a suitable recommendation for how the business could respond. If the analysis is solid but the proposed solution is missing, inadequate or flawed, the DDDM process can still go astray. Typically, this issue can occur when there's a lack of collaboration between the data and business teams. While the data team can handle the analysis, they may lack the domain knowledge to formulate meaningful recommendations without guidance from the business teams.
4. **Poor communication.** If you have a solid insight and a reasonable recommendation, it must be communicated clearly and persuasively to decision-makers. Otherwise, it may be overlooked or misinterpreted if the audience doesn't fully understand the insight's significance or level of urgency. [Data storytelling](#), which combines a narrative structure with explanatory visuals is one of the most effective ways to share insights that lead to action. However, it is often an [underdeveloped data skill](#) in most organizations and demands more [focused training](#), practice and coaching.
5. **Bad interpretation.** Even when an insight and potential solution have been communicated effectively, decision-makers can still misinterpret what's being shared with them. Without an adequate level of [data literacy](#) and more specifically [data interpretation skills](#), individuals can still misunderstand what the numbers mean and what actions should be taken. Many managers could benefit from training on basic data interpretation skills to avoid inadvertent mistakes.
6. **Wrong decision.** When the evidence clearly supports a particular course of action, decision-makers can still reject it and decide to go in a different direction. In some situations, cognitive biases such as confirmation bias or [Dunning-Kruger Effect](#) can create problems. Alternatively, a lack of accountability for decisions can cause individuals to prioritize personal agendas or gains over what's best for the team or organization. Without an established [data culture](#), an organization can face challenges in this area.
7. **Faulty execution.** Whether or not a decision is based on data, it will likely fail to generate the desired results if it's not implemented correctly. Regardless of how great the insights, recommendations and decisions are, they may be worthless

without proper and timely execution. Laying to waste valuable insights in the execution phase can be disheartening to all. The DDDM shouldn't stop at just making a decision. Data should also be relied on to monitor and optimize the execution efforts.

8. **No learning.** If you have addressed all the preceding steps in the DDDM process, your organization can still limit its impact if it does not systematically examine and learn from each data-driven decision. In general, data-driven decisions will outperform instinct-based decisions. However, not all data-driven decisions will produce the anticipated results. If your business does not measure and learn from the results, you lose the ability to refine and improve future decisions.

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All these steps in the data-driven decision-making process are interrelated. A mistake made at one step can easily cascade through the rest of the DDDM process. For example, if you fail to communicate your insight clearly, you invite the possibility that the audience may misinterpret what you've shared, make the wrong decision and take the incorrect action. When you're troubleshooting problems with data-driven decision-making at your organization, you may need to evaluate whether upstream issues are having downstream consequences.

Being aware of these common pitfalls can help you optimize your DDDM process. It's easy to get fixated on certain aspects of the process and not fully appreciate what must come together to generate successful data-driven decisions. Having a holistic perspective and understanding of the pitfalls of the DDDM process can help you maximize the returns your organization receives from its data investments.

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