RISK IS NOT THE SAME AS UNCERTAINTY

Understanding the Different Faces of Project Uncertainty

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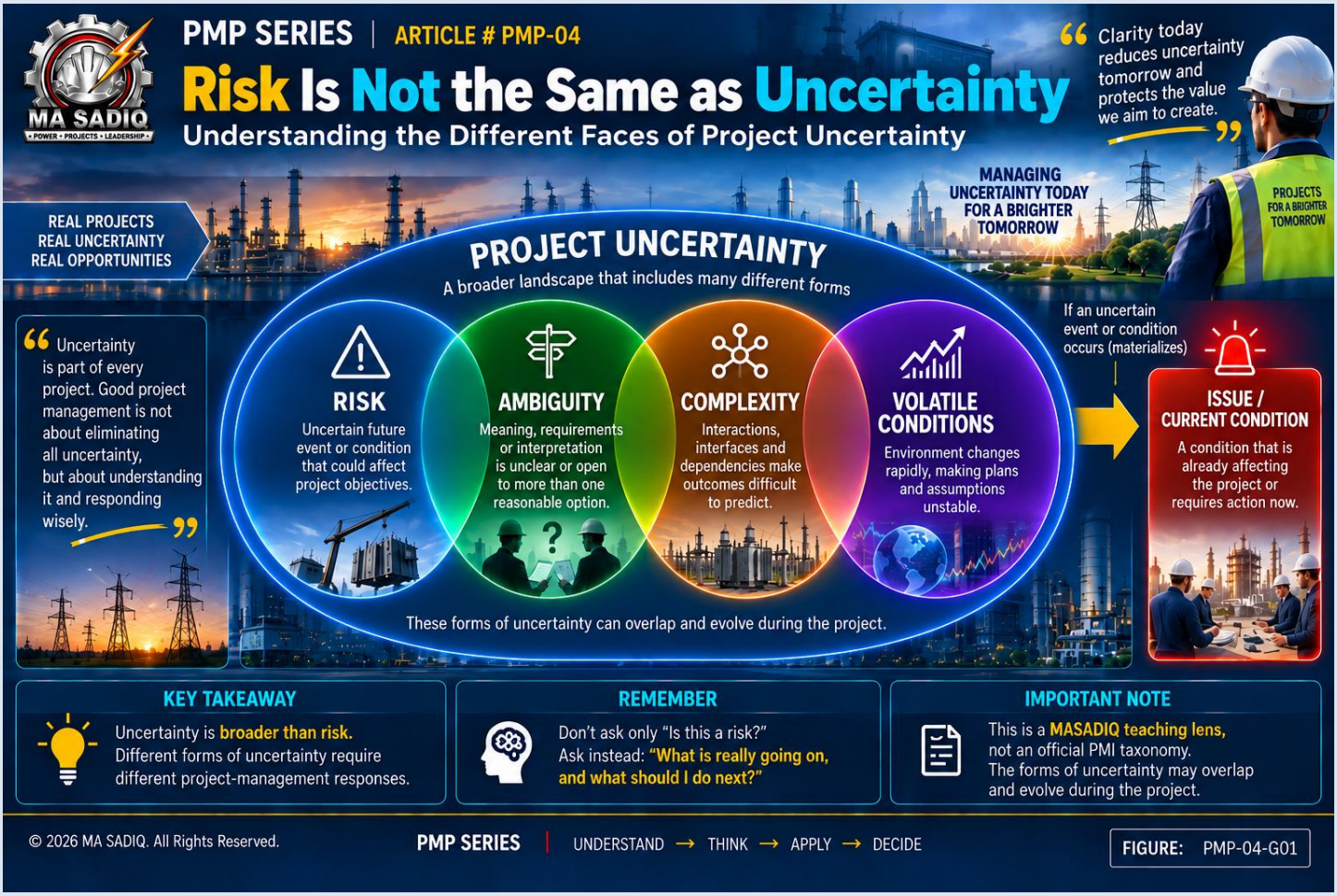


INTRODUCTION

Article# PMP-03 asked a simple but demanding question: *What value are we trying to create?*

The next question is just as important: *What could affect our ability to create it?*

That is where many project conversations go off track. Teams often use *uncertainty*, *risk*, *issue*, and *change* as if they mean the same thing. They do not. When everything unknown is labeled as risk, the response becomes

mechanical: add it to the risk register, assign an owner, and move on. That can work for some situations, but not for all of them.

Current PMI guidance supports a broader view. Risk matters, but it sits inside a larger landscape of uncertainty. Some situations are unclear rather than risky. Some are difficult because of interdependence rather than probability. Some are shaped by fast-moving external conditions. Some shift from one form to another as the project develops.

For a project manager, the practical question is not which label sounds smartest. The question is: *What is really going on here, and what should I do next?*

◈ UNCERTAINTY IS BROADER THAN RISK

PMI defines risk as an uncertain event or condition that, if it occurs, affects one or more objectives. That is precise and useful. It tells us that risk is future-oriented and tied to impact on project objectives.

But PMI's current treatment of uncertainty is wider than that. Uncertainty includes situations where the team does not yet fully understand the issue, the path forward, the likely outcomes, or even what problem needs solving. PMI also recognizes that ambiguous or uncertain situations do not always become risks. Some are resolved through clarification, analysis, coordination, or progressive learning before they ever need to be managed as formal risks.

That distinction matters. If a client requirement can be read in two different ways, the immediate problem may be ambiguity, not risk. If several engineering packages are individually sound but their combined behavior is difficult to predict, the central challenge may be complexity. If market conditions are shifting so quickly that last month's assumptions no longer hold, the project may be dealing with volatility in its environment.

Risk is still part of that picture. It is just not the whole picture.

🧭 A MORE USEFUL WAY TO READ PROJECT UNCERTAINTY

For this article, MASADIQ uses four practical lenses to help diagnose uncertainty:

Risk deals with uncertain future events or conditions that could affect objectives.

Ambiguity appears when meaning is unclear, incomplete, or open to more than one reasonable interpretation.

Complexity appears when interactions, interfaces, dependencies, and system effects make outcomes difficult to predict.

Volatile conditions appear when the environment changes quickly enough that assumptions, plans, or forecasts become unstable.

These are teaching lenses, not a rigid official PMI taxonomy. Real projects do not present uncertainty in neat boxes. The same situation may contain more than one pattern at once, and a situation can evolve over time.

A requirement may begin as ambiguity, become a risk of rework, and later turn into an active issue. A supplier market may be volatile, creating multiple procurement risks. A technically integrated system may be complex even when no single component is especially difficult on its own.

The value of this lens is diagnostic. It helps the project manager match the response to the problem.

⚖️ RISK, ISSUE, AMBIGUITY, COMPLEXITY, AND VOLATILITY ARE NOT INTERCHANGEABLE

The clearest distinction for PMP thinking is the one between *risk* and *issue*.

A risk is still in the future. It may occur, and if it does, it affects the project.

An issue is a current condition that is already affecting the project or requires action now.

That sounds obvious until a schedule review turns into confusion. A vendor warning that relay panels *may* ship late is a risk. A missed contractual shipment date is an issue. Treating the second one as if it were still only a risk delays recovery action.

Ambiguity is different again. Suppose the phrase "remote operation from the existing control center" appears in the client requirement. One team reads that as command and control through the existing SCADA architecture. Another reads it as limited supervisory visibility with manual switching controls retained locally. The immediate problem is not the probability of an event. The problem is that the requirement does not yet mean the same thing to everyone.

Complexity has a different signature. Think of an EPC power project where protection settings, communications architecture, SCADA point lists, vendor I/O schedules, civil completion status, cable meggering, outage windows, and commissioning sequences all interact. Each workstream may be manageable on its own, yet the combined behavior becomes hard to predict because the system is tightly coupled.

Volatile conditions sit differently again. A stable procurement plan can unravel quickly if specialist commissioning resources become scarce, logistics lead times move sharply, or approval cycles start changing under external pressure. The issue is not only one future event. The environment itself is moving.

🏗️ ONE ENGINEERING PROJECT CAN CONTAIN SEVERAL FORMS OF UNCERTAINTY AT ONCE

Consider a generic grid connection or substation expansion project involving HV equipment, protection and control panels, SCADA integration, communications interfaces, construction, and commissioning.

The project team is progressing through detailed engineering and long-lead procurement. Civil works are moving. Primary equipment drawings are under review. Protection logic is being coordinated with the client's operations team. FAT and site energization windows are already visible on the forward plan.

Now several uncertainty patterns emerge.

A key vendor advises that global component availability may affect the delivery of protection relays. That is a **risk**. It is a future possibility with clear schedule and commissioning implications. The team should assess probability and impact, evaluate response options, and decide how closely it needs to be monitored.

At the same time, the client's requirement for remote control authority is being interpreted differently by the protection engineer, the SCADA integrator, and the operations representative. That is **ambiguity**. The right next action is not to score it on a probability-impact matrix. The right action is to clarify intent, confirm functional expectations, align stakeholders, and document the requirement correctly.

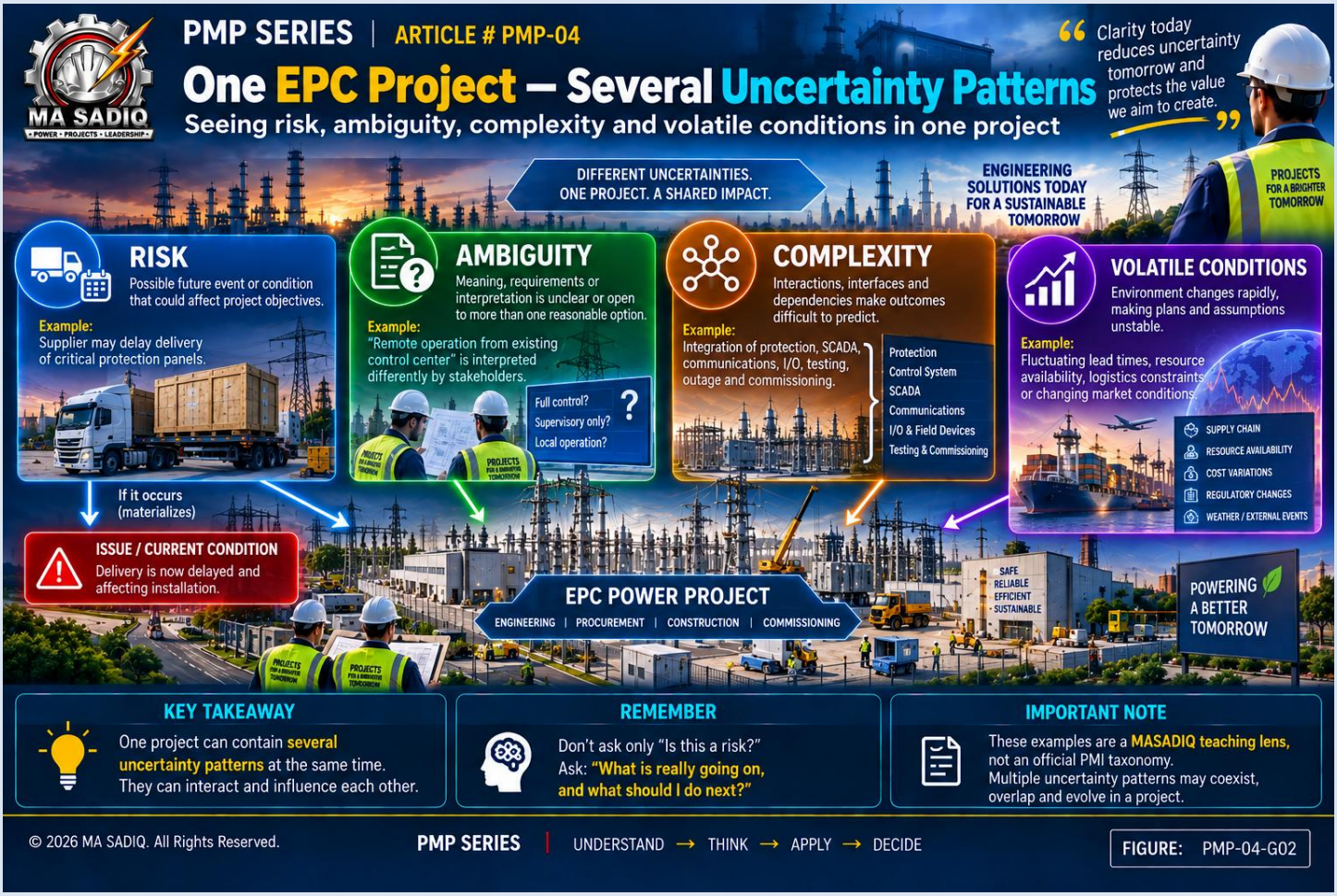
Meanwhile, the integration path is becoming difficult to predict because protection settings, RTU configuration, telecoms readiness, interface testing, outage approvals, and commissioning sequences are all interdependent. That is **complexity**. The response is not simply "add more detail." The team may need stronger interface management, staged integration planning, systems-level reviews, and tighter coordination across disciplines.

At the same time, specialist commissioning resources are tightening across the market, shipping assumptions are moving, and review turnaround times are becoming less reliable. Those are **volatile conditions**. The project manager may need shorter review cycles, more frequent assumption checks, earlier decision points, and a more adaptive planning rhythm.

None of these conditions excludes the others. In fact, they can reinforce one another.

The ambiguous control philosophy can create a risk of rework. The complex integration environment can magnify the impact of a vendor delay. Volatile market conditions can make contingency plans less reliable. And if the relay shipment is actually missed, that future risk has now become a current issue.

That is how real projects behave.



🎯 WHAT THE PROJECT MANAGER SHOULD DO NEXT

Diagnosis is valuable only if it leads to better action.

When the uncertainty looks like **risk**, the project manager should think in terms of exposure, impact on objectives, ownership, response options, contingency, triggers, and review.

When the uncertainty looks like **ambiguity**, the project manager should think in terms of clarification. Who needs to align? What assumption is being read differently? What decision or acceptance criterion is missing? What must be confirmed before further work proceeds?

When the uncertainty looks like **complexity**, the project manager should think in terms of interfaces and system effects. Where are the critical dependencies? Which teams are making local decisions that affect the wider system? What needs to be integrated, sequenced, or reviewed together rather than separately?

When the project is operating in **volatile conditions**, the project manager should think in terms of cadence and adaptability. Which assumptions are aging too quickly? Which decisions need shorter feedback loops? Where does the team need earlier warning, more frequent review, or a smaller planning horizon?

And when the situation is already a **current issue**, the response shifts again. The question is no longer how to analyze uncertainty. The question becomes how to contain impact, coordinate recovery, communicate clearly, and decide what change or escalation is required.

🧠 PMP EXAM LENS: DIAGNOSE FIRST, THEN CHOOSE THE STRONGEST NEXT ACTION

This distinction is highly useful for PMP preparation, but only if it is used properly.

The exam is not rewarding category memorization for its own sake. It is testing whether you can read a situation, understand what kind of problem you are facing, and choose the best next action in context.

Consider three short examples.

A supplier says a factory test slot may slip because a component source is unstable. The strongest response is to assess and manage the exposure as a risk. Updating the issue log as if the delay has already happened would be premature.

A design review reveals that two teams have built different interpretations of the same control requirement. The strongest response is to clarify the requirement and align the relevant stakeholders before pushing ahead. Treating it immediately as a standard risk response problem misses the source of the difficulty.

A shipment date has already been missed and site installation sequencing is now affected. The strongest response is issue management and recovery planning, not simply another round of risk identification.

PMP-style questions often place two or three plausible actions in front of you. That is deliberate. A technically possible action is not always the best immediate action. The stronger answer usually fits the *current state* of the problem.

That is why “keyword matching” is unreliable. Seeing the word *uncertain* does not automatically mean “risk register.” Seeing the word *delay* does not always mean “escalate.” The project manager first needs to determine whether the situation is unclear, possible, systemic, unstable, or already happening.

⚠ COMMON TRAPS

One trap is treating every unknown as a formal risk. That leads to heavy administration and weak diagnosis.

Another is confusing a current issue with a future risk. Once the condition has occurred, the project manager needs action and recovery, not only monitoring.

A third trap is using technical difficulty as a substitute for complexity. Complexity is not just “hard engineering.” It is the behavior that emerges from interaction, coupling, sequencing, and dependency across the system.

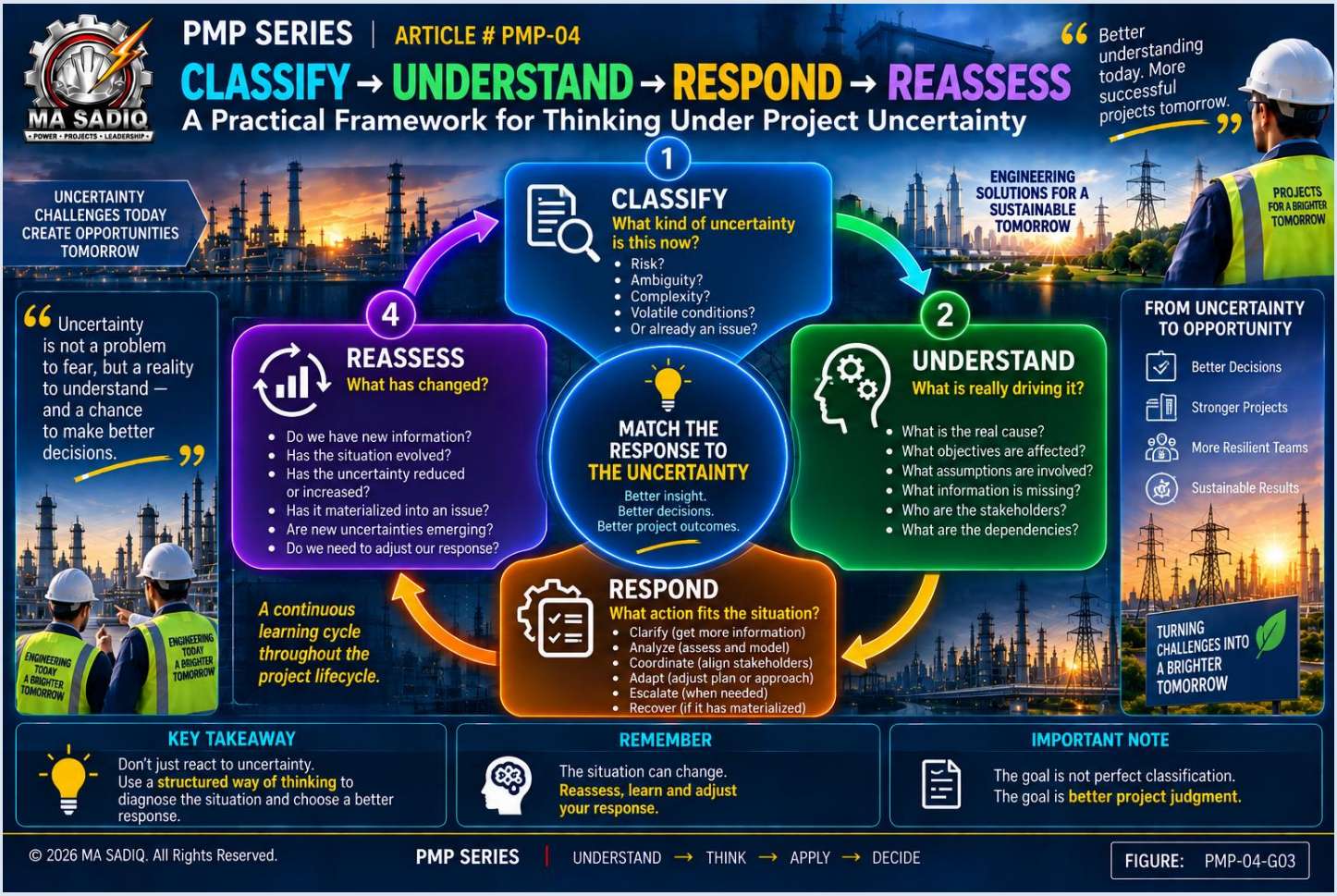
A fourth trap is treating volatility as if it were just another name for risk. It is better understood as the condition of the environment: fast movement, unstable assumptions, and reduced reliability of forecasts. Specific risks may

arise within that environment, but the project manager may also need to adapt planning and review cadence more broadly.

The last trap is believing that classification is the goal. It is not. The goal is a better decision.

↻ PRACTICAL FRAMEWORK TO DEAL WITH PROJECT UNCERTAINTY

This four-step framework remains useful because it reflects how experienced project managers actually think.



Classify

Start by asking what kind of uncertainty is most visible right now. Is this mainly a future event, unclear meaning, system interaction, unstable context, or an active issue?

Understand

Look deeper before acting. What objectives are exposed? Who is affected? What assumptions are in play? What evidence do you have, and what is still missing? If several forms of uncertainty are present, which one is driving the decision that must be made now?

Respond

Choose the response that fits the situation. That may mean formal risk action, requirement clarification, interface coordination, schedule replanning, assumption testing, escalation, change control, or issue recovery. The response should match the nature and timing of the problem.

Reassess

Uncertainty evolves. A clarified ambiguity may disappear. A volatile condition may create new risks. A monitored risk may become an issue. A local issue may expose wider system complexity. Reassessment keeps the team from responding to yesterday's version of the problem.

The strength of this framework is not that it replaces PMI terminology. It does not. Its strength is that it helps practitioners use PMI thinking with better judgment.

❓ A SHORT TEST OF YOUR OWN THINKING

A commissioning manager reports that the telecoms interface may not be ready when protection testing begins. At the same meeting, the operations team says the switching philosophy in the design package is still open to interpretation. Meanwhile, several outage approvals are linked to each other in a way that could affect the entire energization sequence.

A disciplined project manager does not treat these as one undifferentiated problem.

One part is a **risk** that needs assessment and response planning.

One part is **ambiguity** that needs clarification and alignment.

One part is **complexity** that needs systems-level coordination.

And if external approvals start moving unpredictably, the project may also be experiencing **volatile conditions** that require tighter review cycles and refreshed assumptions.

This is exactly the kind of thinking that improves both project judgment and PMP performance.

✓ KEY TAKEAWAYS

Risk matters because it affects objectives, but it does not cover the full landscape of uncertainty.

Some project uncertainty is best understood as ambiguity. Some comes from complexity. Some comes from volatile conditions around the project. These forms can overlap, and they can evolve.

A risk is future-oriented. An issue is happening now.

The project manager's job is not to force every situation into a single label. It is to diagnose what is driving the difficulty and take the next action that fits the actual condition of the project.

That is a more useful habit than memorizing terms. It is also closer to how real projects are led.

🧠 PMP MEMORY BOX

When you face an uncertain situation, ask:

What kind of uncertainty is this now?

What objective is exposed?

What is the strongest next action?

If it is still possible, manage it as a risk.

If it is unclear, clarify it.

If it is interconnected, coordinate it as a system.

If conditions are moving quickly, shorten feedback loops.

If it has already happened, treat it as an issue.

💡 MASADIQ PROFESSIONAL INSIGHT

Many project delays are not caused by poor effort. They are caused by poor diagnosis.

Teams sometimes respond to ambiguity with mitigation, to complexity with more detail, to volatility with old assumptions, and to active issues with passive monitoring. The language sounds professional, but the action misses the problem.

Better project judgment starts with seeing the uncertainty clearly.

➜ CONTINUE LEARNING

This article sits naturally between value thinking and tailoring. PMP-03 asked what value the project is meant to create. PMP-04 asks what uncertainty could affect the creation of that value. Later articles in the series take some of these ideas further, including tailoring, threats versus opportunities, complexity, and systems thinking.

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👨‍💼 ABOUT THE AUTHOR

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The MASADIQ PMP Series is designed to help project professionals build real understanding, not just exam memory. Each article focuses on one practical idea, connects it to PMI-grounded thinking, and translates it into professional judgment that can be used both in practice and in PMP-style scenarios.

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