What is risk management and why is it important?

Before we proceed lets discuss what the risk is.

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Risk management is the process of identifying, assessing and controlling threats to an organization's capital, earnings and operations. These risks stem from a variety of sources, including financial uncertainties, legal liabilities, technology issues, strategic management errors, accidents and natural disasters.

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A successful risk management program helps an organization consider the full range of risks it faces.

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Risk management also examines the relationship between [different types of business risks](https://www.techtarget.com/searchcio/feature/4-basic-types-of-business-risks-in-the-enterprise) and the cascading impact they could have on organization's strategic goal

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Why is risk management important?

If unforeseen event catches your organization unaware, the impact could be minor, such as a small impact on your overhead costs. In a worst-case scenario, though, it could be catastrophic and have serious consequences, such as a significant financial burden or even the closure of your business.

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??? ASK QUESTION WHAT DO U THINK IS THE MAIN GOAL OF RISK MANAGEMENT ?

The aim of any risk management program is not to eliminate all risk but to preserve and add to overall enterprise value by making smart risk decisions.

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"We don't manage risks so we can have no risk. We manage risks so we know which risks are worth taking, which ones will get us to our goal, which ones have enough of a payout to even take them,"

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So essentially , The main objective of risk management is to minimize risks while maximizing the opportunities that may arise from these risks. By assessing risks and developing risk mitigation measures, companies can effectively manage their risks and optimize their opportunities at the same time.

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Q: Can u give me some examples of Risks connected with IT Project?

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Now I will present 6 most frequent Risks in IT project and how to manage them

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Scope creep

Scope risk, or “scope creep”, refers to the unexpected and uncontrolled expansion of a project’s objectives beyond its original intentions. This typically happens when project goals aren’t precisely outlined from the start or when requirements change partway through the project.

Imagine a mobile app development project where the initial requirement was to build a simple weather app. Midway through, stakeholders decide they want a feature that provides weather-based outfit recommendations. This addition, if not initially accounted for, can stretch resources, time, and budget.

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How to mitigate scope creep

Before kicking off a project, it’s essential to solidify and agree upon the objectives, ensuring they are both clear and comprehensive.

This foundational step minimizes any potential ambiguities and helps prevent unplanned alterations in the project’s scope. Engaging with stakeholders right from the get-go is crucial; it establishes a shared vision and defines the project’s boundaries.

Furthermore, scheduling regular progress reviews is crucial to keep the project aligned with its initial objectives. These check-ins also provide an opportunity to course-correct if deviations arise

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Performance risks

Performance risk pertains to a project’s potential not meeting its predefined success criteria or expectations. It simply means the project does not deliver the anticipated benefits or results despite meeting budgetary and time constraints.

Consider a software company that develops an application, adhering to its budget and time constraints. The application functions perfectly upon launch but fails to attract users or generate the expected revenue. Though the project was completed as planned, it didn’t achieve the desired impact in the market.

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How to mitigate performance risks

Spotting potential performance hazards from the start of a project is vital. This might mean assessing the current market landscape, going deep into users’ needs, and staying ahead of technological shifts. Leveraging project management software can be invaluable, allowing real-time oversight of processes and ensuring that each milestone aligns with the envisioned outcomes, paving the way for efficiency and accountability.

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External hazard risks

External hazard risks refers to unpredictable events stemming from external factors beyond project management’s control. These risks can be natural, such as climatic events, or man-made, like vandalism, terrorism, or societal disruptions. These factors can significantly affect the project’s timeline, cost, and quality.

Imagine a construction company building a high-rise in a coastal city. While they’ve accounted for standard weather conditions, an unexpected severe storm surge floods the construction site, causing damage and halting work. This natural disaster was beyond the company’s control but has now affected the project’s budget and timeline.

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How to mitigate external hazard risk

While external hazards are unpredictable, proactive steps can lessen their impact. Use historical and political data to regularly assess risks based on the project’s locale and nature. Have contingency plans ready, such as alternate work sites or emergency resources. Insurance is essential to cover potential damages and delays.

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Technology risks

Technology risks cover the potential challenges and threats posed by the integration and dependency on technology within a project. These project risks range from technical failures, cyber-attacks, and system breaches to the fast-paced evolution of technology itself.

Consider a company implementing a new Customer Relationship Management (CRM) system. If the software’s compatibility isn’t carefully assessed, it might not integrate well with existing systems. Moreover, without proper security measures, the company’s customer data could be exposed to cyber threats.

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How to mitigate technology risks

Ensuring robust cybersecurity measures, including firewalls, encryption, and routine security audits, is vital to avoid cyber threats. It’s also important to have backup systems and data storage to counteract technical issues, preventing data loss or unplanned downtime. Regular training keeps personnel adept at navigating new technologies and alerts them to potential risks and best practices.

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Communication risks

Lack of clarity in a project is a significant risk that arises from miscommunication, ambiguous project scopes, and unclear timelines. This uncertainty can lead to isolated tasks, exceeding budgetary constraints, missing deadlines, shifting project requirements, altering project directions, or ultimately resulting in unsatisfactory outcomes. It’s essentially a byproduct of not having well-defined parameters or transparent communication throughout the project’s lifespan.

Imagine a mobile app development team beginning work based on a basic overview without detailed specifications. As they progressed, they realized the stakeholders had different functionalities and design aesthetics in mind. This lack of clarity means the team has to redo certain sections, leading to delays and increased costs.

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How to mitigate communication risks

Begin with well-defined scopes, objectives, and deadlines to minimize vagueness and align everyone’s expectations. Utilize a central tool or platform to keep everyone on the same page, thus avoiding isolated work. Regular meetings with stakeholders and team members foster collaboration and alignment.

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Cost risks

Cost risk refers to the potential for a project to exceed its allocated budget. This can occur for various reasons, such as poor initial budgeting, scope changes mid-project, unforeseen complications, or inaccuracies in cost estimation. Overruns can hinder the project’s progress and may stall its completion if the budget cannot be adjusted or supplemented.

For example, a company plans to upgrade its IT infrastructure. While budgeting, they overlooked the costs associated with training staff on the new systems. Midway through the project, they realize their oversight. Now, they’re faced with unexpected expenses beyond the initial budget, putting the project at risk of exceeding its financial limits or being completed without achieving its full potential.

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How to mitigate cost risk

## Regularly comparing the budget to actual costs is critical, allowing early identification of variances and prompt corrective measures. Project plan templates can align stakeholders on deliverables, scope, and timelines, ensuring shared financial objectives. A reserve fund or plan is always wise, setting aside resources for unexpected costs.

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## What Are The 5 Types Of Risk Management?

There are five primary types of risk management:

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### 1. Risk Acceptance

Acceptance is when an organization decides to accept the risks associated with a particular situation. With this kind of risk management, the company has recognized that it is not worth the cost and effort to mitigate the events that may occur due to the risk.

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### 2. Risk Transference

[Transferring risk](https://safetyculture.com/topics/risk-management/risk-transference/) is when an organization shifts the risks to another party, such as through insurance. For example, When a person or an organization gets insurance, the financial risk connected with an unfortunate event is transferred to the insurance company instead.

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### 3. Risk Avoidance

[Avoidance of risk](https://safetyculture.com/topics/risk-management/risk-avoidance/) is when an organization takes steps to prevent or avoid a particular risk from happening such as an injury, disease, or death. The company mitigates such risks by not involving in risky activities or situations.

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### 4. [Risk Reduction](https://safetyculture.com/topics/risk-management/risk-reduction/) and Loss Prevention

Loss prevention and reduction are when an organization takes steps or methods to reduce the impact of a particular risk that occurs. It combines risk acceptance as it acknowledges the risk involved while also focusing on how to reduce and contain the loss from spreading.

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### 5. Risk Sharing

Risk sharing is when an organization distributes the risk to the whole team. This method removes the burden of problematic events to one department and shares it with others so that those who can help and provide support for that problem can help and control those risks.

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Risk Assessment Tools

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* The [risk matrix](https://www.etq.com/blog/creating-a-risk-matrix-3-examples/) is like your hammer or your screwdriver—it’s the tool you’ll come back to again and again in a variety of circumstances.
* **How a Risk Matrix Works:**Risk is defined as probability multiplied by potential impact. A [risk matrix](https://www.etq.com/blog/creating-a-risk-matrix-3-examples/) breaks these out into separate scales and assigns numeric values to each level of probability and impact. This allows you to chart the values on a matrix and calculate the risk for each combination of values.
* On a color-coded risk matrix, the hazard will fall into one of four categories: low (acceptable) risk, high, extreme(unacceptable) risk and moderate risk. This lets you see where additional controls are required to reduce risk to acceptable levels, although it requires management to determine ahead of time what precise level of risk in the moderate region is unacceptable.

## **2. Decision Tree**

A decision tree is a less frequently used risk assessment tool, but it can still come in handy. It’s particularly useful for understanding how to apply policies or choosing between different modes of action.

**How a Decision Tree Works:**A decision tree presents a series of questions or choices that branch out into a variety of outcomes. For example, quality professionals in the food industry might use a [decision tree](https://blog.etq.com/bid/57850/Quantitative-Risk-Assessment-in-HACCP-Plans-Decisions-Decisions) to determine when a hazard requires a Critical Control Point (CCP). You can also use statistics to inform a decision tree to figure out, for example, when it’s safe to release a new product.

## **3. Failure Modes and Effects Analysis (FMEA)**

[Failure Modes and Effects Analysis](https://www.etq.com/new-product-introduction/) (FMEA) outlines all the ways a design, process or product can fail.

**How FMEA Works:**an FMEA chart places the process step or design in question on individual rows, with vertical columns allowing you to map out:

* Each potential failure and its cause
* The effect on higher levels in the process, assembly or system
* Existing controls and detection methods
* Any required actions and associated details