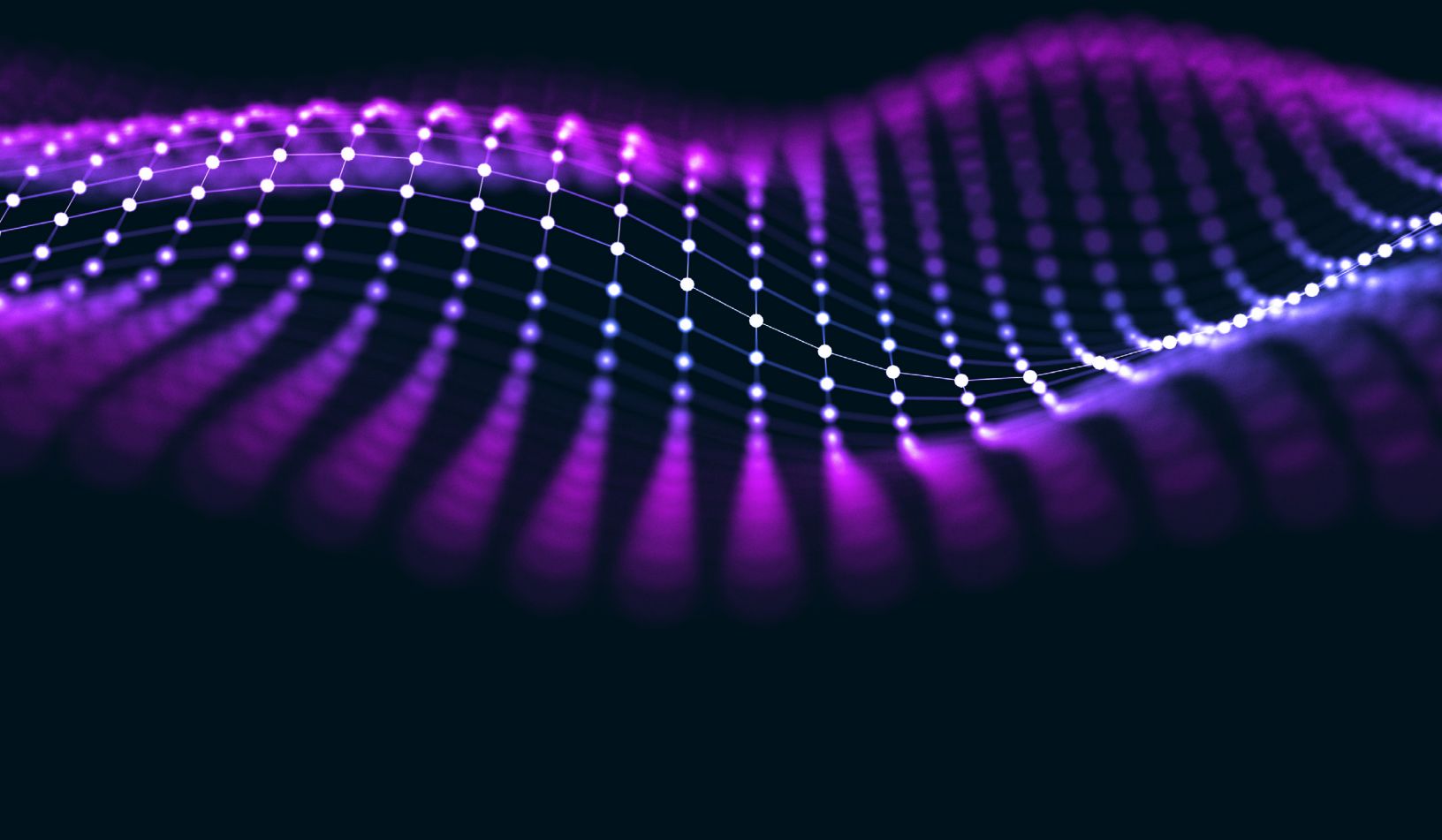




Risk heat map

A risk assessment tool to assist in risk assessment productivity



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What is a heat map?

A risk heat map is a tool used to assist in rating risks, enabling discussions and decision-making throughout the risk assessment process. This ultimately increases productivity as identification and rankings of risk create a focus on resource allotment.

Whether conducted as part of a broad-based enterprise risk management process or more narrowly focused internal control process, mapping each risk is a critical step in risk management. It involves evaluating the likelihood and potential impact of identified risks that are both financial and non-financial.

Heat maps are a way of representing the resulting qualitative and quantitative evaluations of the probability of risk occurrence and the impact on the organisation if that a particular risk is experienced.

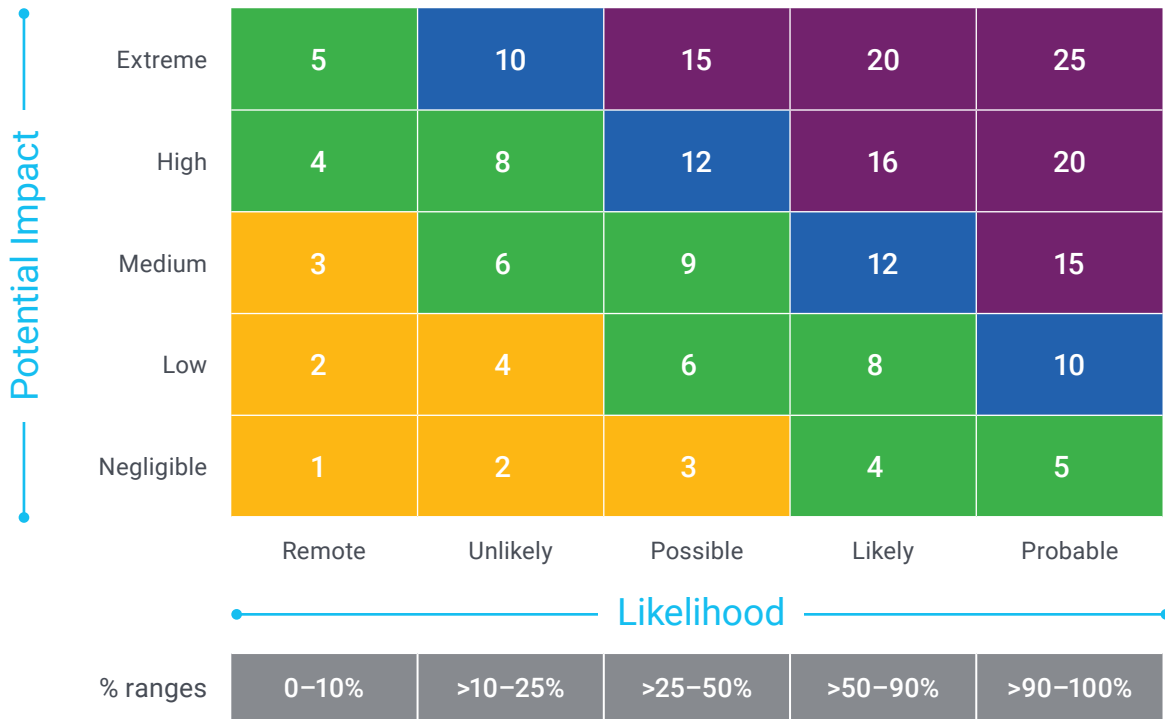
Whether a 3x3 grid or a 5x5 grid, a heat map, as depicted on page 4, shows an illustrative picture of the various ranges in risk characteristics. Any organisation can map probability ranges to common qualitative characteristics of risk event likelihood, and a rated scheme for potential impact. For example, risks can be ranked on the impact based on what is material in financial terms, or about the achievement of strategic objectives. In the 5x5 grid below, risks are prioritised using a simple multiplication formula.

Many organisations map risks on a heat map using a “residual risk” basis. This considers only the remaining risk after mitigation strategies such as internal controls or other risk response activities.

The development of an effective heat map has four critical elements

1. A common and understood language of terms
2. A common understanding of the risk appetite of the company
3. Defining varying levels of impact should a risk occur – this includes assisting in determining what is material to the entity, division or department
4. Assignment of probabilities of occurrence of the risk and its potential impacts

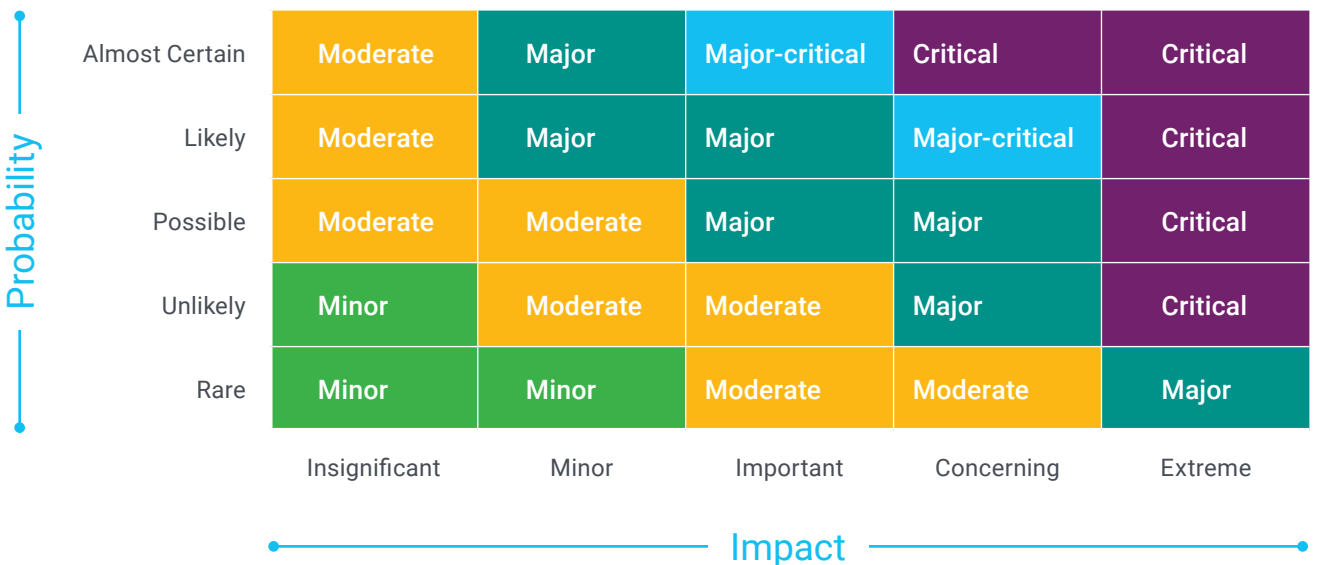
Quantitative risk heat map



Source: Risk assessment for mid-sized companies: tools for developing a tailored approach to risk management. Scott McKay, AICPA, 2011

Another example of a 5x5 grid without qualitative factors but with descriptors is shown below. This type of grid is useful for non-financial assessments as well as high-level and introductory presentations.

Qualitative risk heat map



Benefits risk heat maps provide

- **Quick** and **efficient** visual to enable decision-making
- A visual, **big picture**, holistic view to share while making strategic **decisions**
- Improved **management** of risks and governance of the risk management process
- Allows for **increased focus** on the risk appetite and risk tolerance of the company
- Added **precision** in the risk assessment process
- Additional considerations related to main risks
- **Identification** of gaps in the risk management and control process
- Greater **integration** of risk management across the enterprise and embedding of risk management in operations.

Questions to consider when implementing a risk heat map

- How much risk are we willing to accept?
- What thresholds do we want to monitor and use to alert to action?
- What constitutes a material risk to our company?
- What is the range of acceptable variance from our key performance and operating metrics?
- What thresholds do we want to monitor and use to alert to action?
- How will we define our terms to evaluate the likelihood of risk events and the impact that they might have on our business so that we can map our potential risk events to our heat map?
- What types of risk will immediately affect our continuity? How long can we sustain our business in the event a critical risk occurs?
- Have we considered mitigation activities on the rating of risks?

Actions to take/do's	Actions to take/don'ts
Conduct risk self-assessment workshops with various departments to take advantage of the insights of managers.	Don't rely on surveys to capture initial thoughts about risks.
Prepare an initial risk library to use as a starting point.	Avoid getting stuck in root cause analysis.
Get consensus on risk tolerances – acceptable levels of missing targets.	Don't forget to look outside the box.
Identify thresholds for action.	Don't forget to quantify risks in terms of the potential financial impact on the organisation in terms of cash, earnings etc.
Clarify terms used to establish probability estimates.	Don't forget to consider the state of controls and other risk management practices in place in the organisation.
Establish participants' understanding of the effectiveness of controls and other risk responses used in the organisation.	
Look outside your entity to the industry and the world for potential identification of risks.	

Coming in 2021 are the updated tools: Communicating risk using a heat map and risk-scenario planning
Please refer to our current tool and [download the full tool and case study](#).



Acknowledgements

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