

## Effective measurement of enterprise risk management programs

By Alberto G. Alexander, Ph.D, MBCI

Enterprise risk management (ERM) programs need to have mechanisms that management can use to measure their effectiveness.

A successful ERM program not only identifies risks that an organization faces and helps avoiding them, but also identifies opportunities the company can take advantage of to expand growth and value. This is only possible if one is able to look into the future to see those risks and opportunities ready to manifest themselves. This is possible using key performance indicators (KPI) and key risks indicators (KRI).

In this article indicators will be defined, specifically KPIs and KRIs. The role of risk measurement and reporting in ERM will be detailed. Then the creation of KRIs that a company can use to anticipate future risks will be developed. At the end, some best practices to implement a KPI/KRI program within an ERM framework will be set-out.

### Introduction

Most managers are usually familiar with the concept of key performance indicators (KPIs), which help them determine how well they are progressing toward their goals. While KPIs are important in ERM programs to evaluate their performance, it is only through key risk indicators (KRIs) that one can tease out trends that may indicate future risk. The axiom 'what gets measured gets managed' is true not just for KPIs but of KRIs as well. If firms can measure risk, then they can optimize business decisions around it.

In this article I will begin defining indicators in general, and KPIs and KRIs specifically. Because they are better known, I will explore KPIs in greater depth before looking at the role of risk measurement and reporting in ERM. Then I will elaborate on how to implement a KPI/KRI program within an ERM framework before concluding with some best practices.

### Indicators

'An indicator is a specific type of metric that answers the question 'How are we doing?' in an actionable way,' (Coleman, 2011) Often indicators accompany benchmarks to measure success or failure in meeting certain goals. It's important to be clear that indicators enable management and other decision makers to assess the needs of the organization and the progress toward intended outputs, outcomes, tactical goals, and strategic objectives.

'Indicators are as varied as the activities they measure. One way of classifying indicators is the stage of a process they are measuring, ' says Coleman (2011). An input indicator, for example, might measure the human and financial resources assigned to a particular project, whereas an

output indicator could measure the quantity of goods and services produced. An outcome indicator measures broader results achieved through goods and services.

Another way of categorizing indicators is according to the breadth of their relevance. A macro indicator might be relevant to understanding risk exposure based on macroeconomic trends. A common indicator is relevant to everyone in the organization, while a specific indicator would apply to a single business unit, function, or activity.

‘KPIs are simply indicators specifically used to determine how well the company is performing against its business goals,’ says Parmenter (2019). They are considered key because they directly and significantly impact business performance.

KRIs show how much risk is associated with a specific activity or investment. Firms may use them to monitor controls, risk drivers, and exposures in order to provide insight into possible risk events. The best KRIs can be trailed against risk tolerance levels and monitored alongside related KPIs and business objectives. KPIs answer the question ‘How are we doing?’ and the KRIs indicators answer the question ‘Where we are going?’

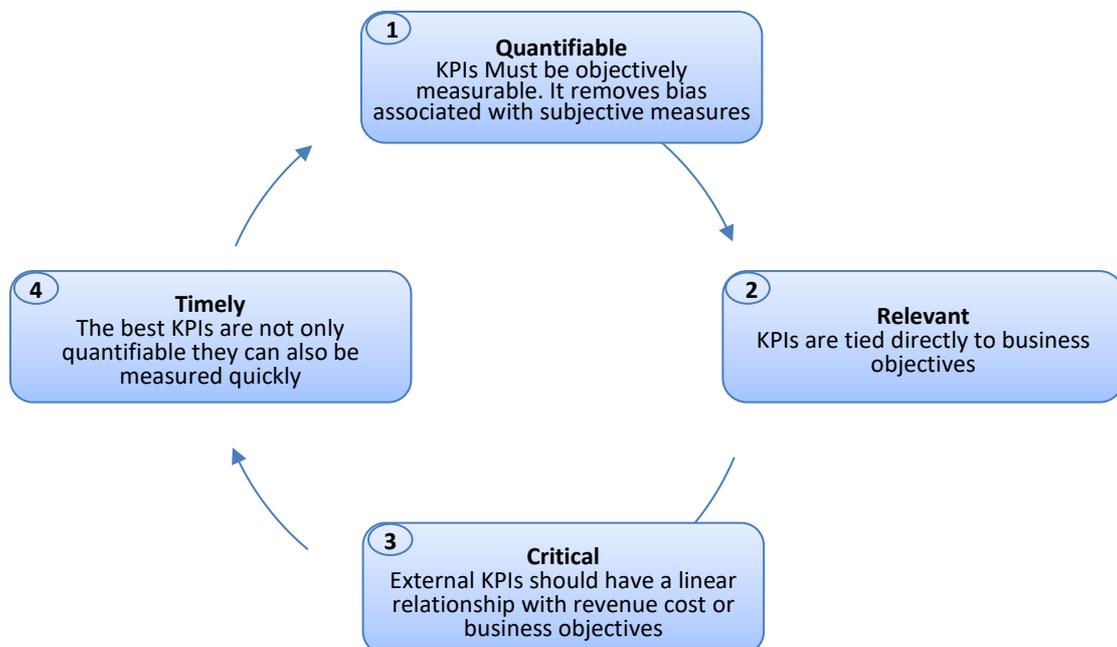
### Key performance indicators

The KPIs fall into two broad categories: internal and external. Internal KPIs typically affect a company’s performance only in limited way, without material effect on the bottom line.

External KPIs are those that impact the company’s bottom line and which deserve the attention of top management.

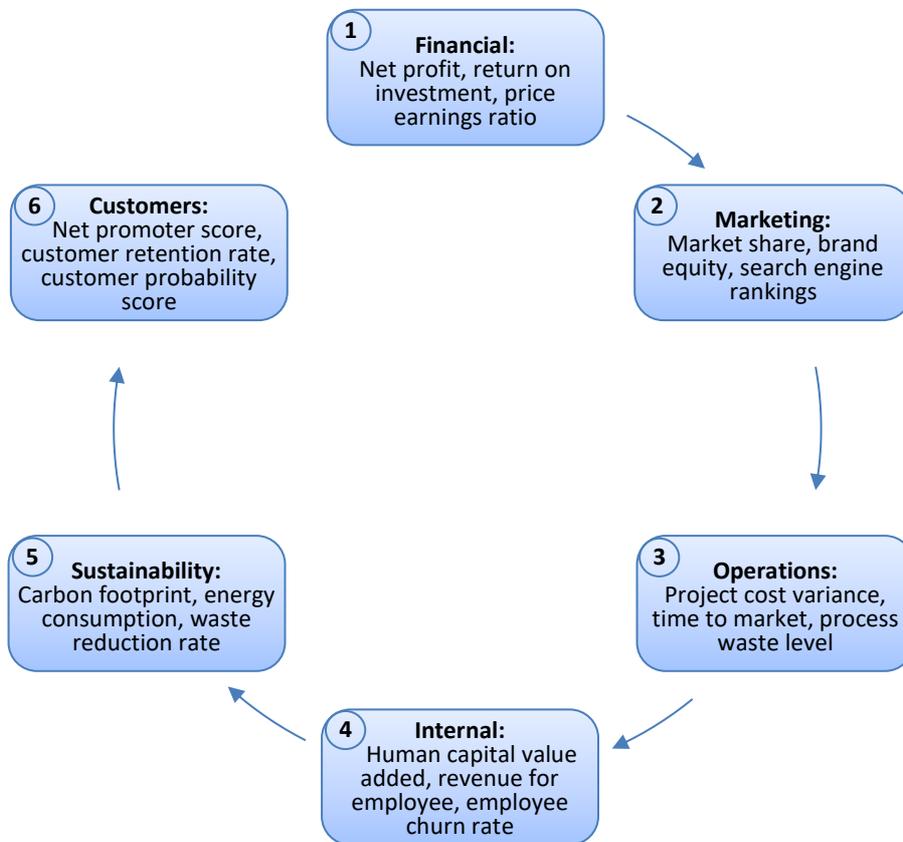
Good KPIs can be challenging to identify. Figure One, shows a number of attributes that can guide the development of KPIs.

**Figure One: Attributes for development of KPIs**



‘KPIs have been around a long time, and they have become embedded as a standard operating procedure in many industries and numerous corporate functions,’ (Parmenter, 2019). Figure Two, shows a few examples of common KPIs for each category performance.

**Figure Two: Common KPIs for each category performance**



Companies have a wide variety of KPIs to choose from, so it is best to focus on a few critical ones while monitoring the others less closely. Every organization is different, so each must begin by using its own scorecard and strategy as a guide in choosing the most effective KPIs to track.

**Key risk indicators**

KPIs work like thermostats, providing current and historical data to act upon. ‘Key risk indicators function more like smoke detectors,’ (Hopkins, 2018). The purpose of a smoke detector is to give the warnings of early signs of a fire so that people can escape safely before it is too late. KRIs serve a similar function. Good KRIs are based on warning signs that a company is headed in the wrong direction and could potentially lose value.

While the development of useful KRIs is a significant challenge, Figure Three shows that there are some readily available sources.

**Figure Three: Available sources for the development of useful KRIs**



A brief description of the available sources depicted in Figure Three follows:

- **Policies and regulations**  
Regulations that govern the business activities of the company, as well as the corporate policies and limits established by management and the board, provide useful compliance KRIs. These indicators may include risk exposures against limits or compliance with regulatory requirements.
- **Strategies and objectives**  
The performance metrics established by top management to assess corporate and business strategies are another good source of KRIs. KRIs should be designed to measure downside risk or performance volatility.
- **Previous losses and incidents**  
Many firms have compiled loss-event databases that capture historical losses and incidents. These databases can provide useful insights on what processes or events have the potential to drive financial or reputational loss. The risk function can then develop KRIs to monitor them.
- **Stakeholder requirements**  
The expectations and requirements of external stakeholders, customers, rating agencies, stock analysts, business partners, etc, can help in the development of KRIs based on variables that are important to these key groups.
- **Risk assessments**  
Risk assessments performed by the organization including audit assessments, risk control self-assessments, and stress tests mandated by regulation such as Sarbanes Oxley, can also provide valuable input on the business entities, processes, or risks requiring KRIs.

‘It is important to be clear that KPIs and KRIs should always be reported with expert commentary and analysis,’ (Olson, 2020). The board and management are not only interested in what risk managers see, but also what they think about what they see.

## KPI and KRI program implementation

When implementing an effective key indicators program, the first step is to define business strategy and objectives, as well as specific performance targets and tolerances.

The risk management function should map the decision-making process that leads to each goal or requirement. The team then should focus on each of these decision points.

In Figure Four, the sequence of steps to identify, select and report appropriate KPIs and KRIs is presented.

**Figure Four: Methodological steps to identify select and report appropriate KPIs and KRIs**



A description of the steps presented in Figure Four, follows:

### Identification

After the analysis and collection of strategies, objectives, and targets is completed, the team should focus on risk exposures that can impact each one. The task at this stage is to identify an indicator for each exposure.

‘Risks can arise from business activities, corporate strategy, culture or any combination of these sources,’ (Hutchins, 2018). Since these will vary from company to company, few organizations will have matching risk exposure profiles. As a result, each company will wind up with a unique set of KPIs and KRIs. Since there is no ‘one size for all’, the risk function should plan on taking sufficient time to examine the company’s exposures before identifying their key risk indicators and putting them in place.

### Selection

At this stage, the risk function must consider the ‘key part of KRI’ by whittling this list down to those indicators that are truly significant and worthy of close monitoring.

Each risk should be evaluated in terms of probability and severity. Risk managers should look at how they affect strategic objectives. Key risks should be mapped to strategic initiatives and business operations. This should allow management to identify the most critical metrics that can serve as key indicators. The next step at this stage should be to evaluate the effectiveness of controls associated with key risks.

The final step should be to prioritize the top risks identified for further analysis, quantification, and risk mitigation.

## Tracking and reporting

To be able to track KPIs and KRIs, it is necessary to determine warning indicators that activate feedback loops. It is important to find out if the company has already established tolerances for such triggers, based on its risk appetite statement.

These warnings should be submitted to the board for final approval, along with mitigation plans that address how to handle breaches.

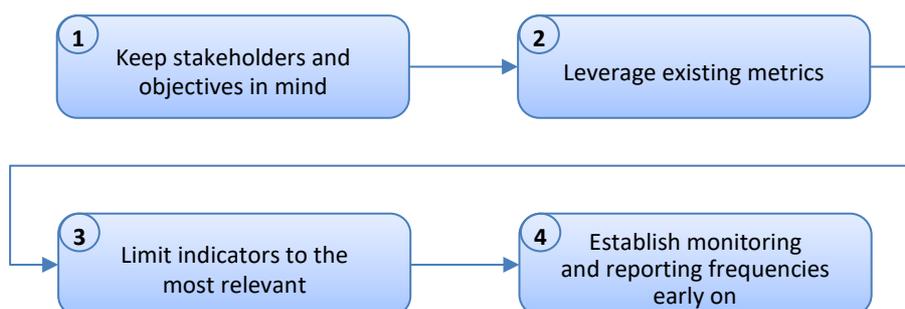
The next step is to monitor each key indicator and make sure that it is available to the relevant decision makers when they need it.

The final step at this stage is to determine how often to track indicators. This depends on both the accessibility of the data and its time sensitivity and can range from continuous monitoring to weekly, monthly, or other periodic reports.

## Best practices for managing KPIs and KRIs

In Figure Five, a number of best practices are presented to be considered when managing KPIs and KRIs.

**Figure Five: Best practices for managing KPIs and KRIs**



These so called ‘best practices’ of Figure Five should be considered when designing and managing KPIs and KRIs to help monitoring the performance of any type of ERM programs

A description of the best practices follows:

### Keep Stakeholders and Objectives in Mind

‘One of the basics when developing KPIs and KRIs is the role of the stakeholders,’ (Lam, 2014). They determine the trajectory of the organization, so it makes sense to include them in planning, and even in the earliest stages, of identification.

Stakeholders should be identified, their needs and desires, and what metrics address these concerns.

The next step should be to align the KPIs and KRIs to business objectives. It is always necessary to keep in mind that ERM must align with organizational objectives.

### **Leverage existing metrics**

This best practice deals with leveraging existing metrics by repurposing them toward ERM goals. 'It's important to remember if an existing indicator is no longer effective, the company should replace it or eliminate it altogether,' (Lam, 2014).

### **Limit indicators to the most relevant**

The company will have collected information about which risks are the most important to monitor with KRIs. Companies can choose from several KRIs to monitor a specific risk. The one with the strongest causal relationship to the risk will yield the most significant information. Each KRI chosen should be clearly defined, with a detailed description of how it will be measured.

### **Establish monitoring and reporting frequencies early on**

To avoid ambiguity, it is important to determine early in the process how the company will monitor each key indicator, and how often.

It is an excellent alternative to automate the data collection process so the process will not rely on human intervention.

It is very important to consider a control panel program to aggregate data and compose reports.

The frequency has to be chosen for aggregation and analysis.

'A balance needs to be found between time sensitivity and the resources required,' (Olson, 2020).

It is very important to periodically revise the KPIs and KRIs for continued usefulness, particularly if there has been any shift in strategy or process.

### **Conclusion**

The key indicators of risk and performance are central to an effective ERM program.

In this article we looked at how KPIs help management answer the question 'How are we doing?', and how KRIs address 'Where are we going?'. KRIs allow the firm to anticipate oncoming risks. By doing so companies can take steps to mitigate these risks as well as take advantage of available opportunities.

Finding indicators and determining which are the most relevant to the business is a multistep process that begins by identifying business unit- specific and organization-wide objectives and recognizing associated risks. It involves gathering all potential indicators and editing down this broad collection into a small, actionable, set of measurements that merit ongoing monitoring. By tracking this focused set of key indicators, companies can not only see how they're performing against objectives, but also anticipate and mitigate future risks.

The integration of KPIs and KRIs is a very appropriate strategy to measure the effectiveness of an ERM program.

## The author

Dr. Alberto G. Alexander holds a Ph.D from The University of Kansas, and a M.A., from Northern Michigan University. He is a MBCI, BCMS, ISMS and QMS, IRCA Lead Auditor and Approved Tutor. He is the managing director of the international consulting and managerial training firm Eficiencia Gerencial y Productividad located in Lima, Peru. He can be contacted at: [alexander@egpsac.com](mailto:alexander@egpsac.com), [www.gerenciayproductividad.com](http://www.gerenciayproductividad.com)

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## Bibliographical references

- Coleman, Thomas. A Practical Guide to Risk Management. CFA Institute. 2011
- Parmenter, David. Key Performance Indicators: Developing, Implementing, and Using Winning KPI's. Wiley. 2019
- Hopkin, Paul. Fundamentals of Risk Management: Understanding, Evaluating and Implementing Effective Risk Management, Kogan Page Limited. 2018
- Olson, David, Wu, Desheng. Enterprise Risk Management Models. Springer. 2020
- Hutchins, Greg. ISO 31000:2018 Enterprise Risk Management (CERM Academy Series on Enterprise Risk Management). 2018 Quality Plus Engineering. 2018
- Lam, James. Enterprise Risk Management: From Incentives to Controls. Wiley. 2014