KRI (Key Risk Indicators) Toolkit

AKS-Labs

This paper reviews practical design and usage of KRI (Key Risk Indicators).

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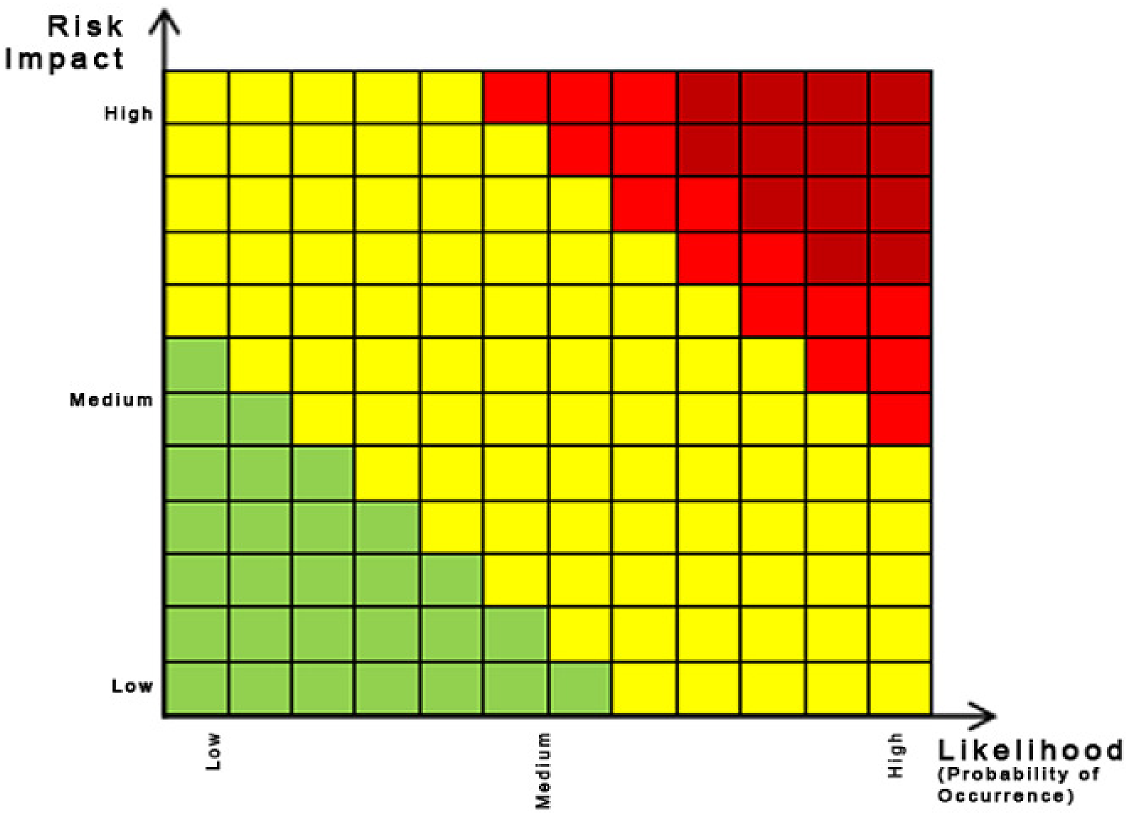
Introduction to KRI (key risk indicators)

As businesses expand their operations and processes become complex, the propensity of risk factors involved becomes more elaborate and necessitates careful analysis and management.



What are Key Risk Indicators?

Further, to elicit business performance in the long term, the need for measuring the risks in advance becomes an important procedure for management to assess the potential impact of an activity performed and the possible risks it carries. Such evaluation metrics are essential to pro-actively manage the prospective risky ventures and facilitate timely detection and take appropriate steps to prevent malfunctions. The timing plays a significant role as the sooner a risk is identified and tackled, better would be the chances to avert it and would ensure timely action and assist in long term success of the organization.

- **Definition:** The key risk indicators are parameters that effectively measure the risks involved in a business procedure and activity and provides us with a prior notification of its possible harmful consequences. More and more organizations are turning to Enterprise Risk Management (ERM) to manage their risks and provide a framework to work out their business strategies in the direction of consistent growth and excellence.

- **Reason for Usage:** The Key Risk Indicators are far becoming the most sought after concepts to understand and adopt by businesses as they perfectly complement the Key Performance Indicators in contributing to an organization's growth and success and relate to the key business objectives too. The concrete identification of inputs that have the potential to hamper productivity and performance automatically relates to the inputs that facilitate performance and are positive contributors to business growth.

Developing an effectual risk framework is a daunting task for most businesses since the chief risk possibilities are laid out in financial terms only, and generating effective operational risk indicators in relation to these is a taxing proposition and challenging task. It is imperative to have a periodical risk assessment process working on regular basis and the management must take apposite steps to emphasize on the efficacy of the risk indicators and review it appropriately.

Communicating the risk appetite and working out the routine services and performance levels are the important utilities of key risk indicators. The implementation of the risk indicators should be done in a way that it assists in improvising the consistency levels, the relevance of their adoption and the relative transparency of the entire process. The risk indicators are positive contributors to track the loss making activities and the shaping up the factors that contributed to the losses. The basic vagueness of the actual concept makes it hard to organize and systemize the entire execution process; however standardization of the procedure by the use of commonly comprehendible language around the business activities and related risks will lead to strong development of the key risk indicators and their specification.

The ERM i.e. the concept of Enterprise Risk Management is steadfastly gaining momentum amidst the corporate honchos and business units to manage their risks and enhance their performance levels. The age old saying that what gets measured gets managed is perfectly applicable under such scenarios and to effectively measure the risks involved in a business, a series of steps are undertaken to build the foundation of a corporate risk management program that is critical to business performance.

Benefits of KRI

The application of Key Risk Indicators holds a promising future in the corporate world and has great potential if implemented in a methodical way with a commonly understood configuration and lingo and goes a long way in ensuring the smooth flow of business processes and activities. Organizations can reap rich dividends from adopting KRIs as the clear defining of these expresses strong commitment to risk management involving stakeholders at all levels.

Building KRI also facilitates significant risk appetite and allows accurate reporting for timely detection and action, besides meaningful comparisons across situations where risk is applicable, and further permits effective monitoring of those risks and provides framework for dealing with them.

The full description of the indicator available can easily provide an Early Warning Signal to the management and prevent impending losses and other related issues that can be detrimental to an organization's growth and long term profitability.

The key risk indicators are immensely useful in supporting the top management decisions and actions as they effectively lay out the risky propositions and manage the groundwork vital to achievement of business objectives and enhance future prospects with their benchmarking.

Limitations of KRI

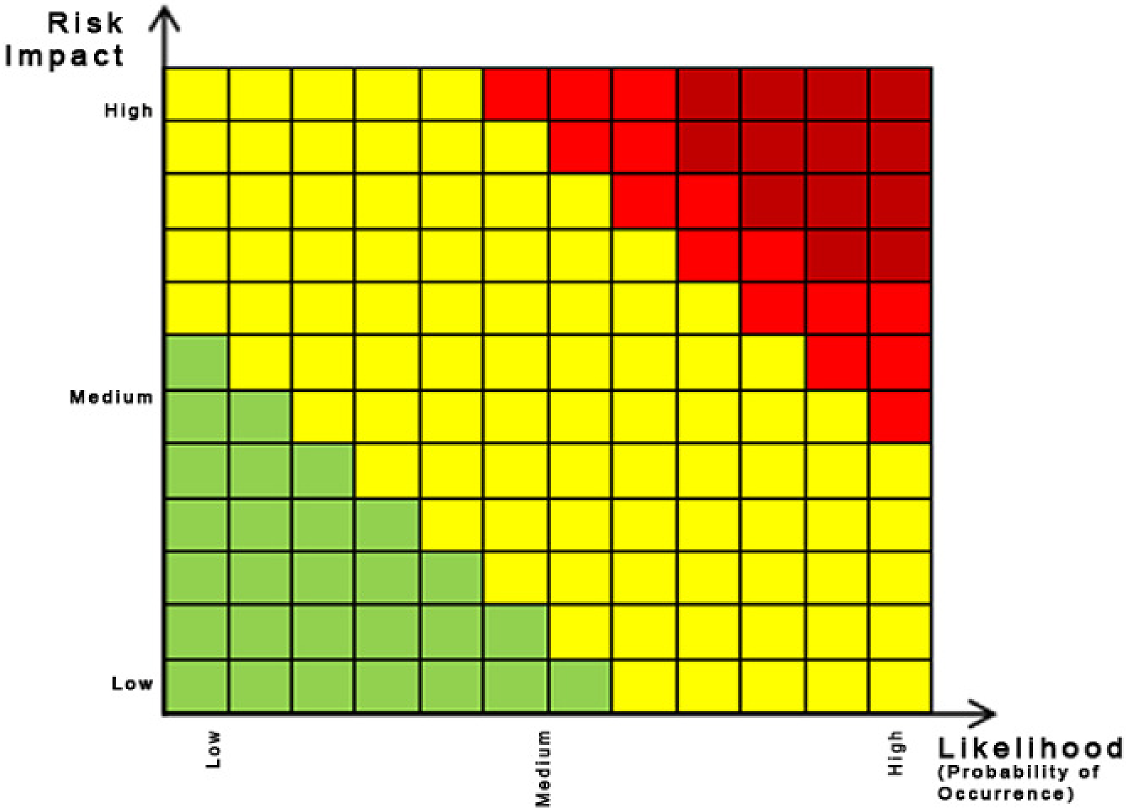
The system of organizing and managing the Key Risk Indicators is a vague concept in itself and calls for in-depth understanding and structuring for collective comprehension. The accurate measurement of the KRI is not a feasible option and not fully trusted by a business.

Any business develops various plans of actions to achieve their objectives and avert risks, however blind faith in such strategies is not a viable option as their value cannot be fully supported with concrete proofs, which makes their development not worth the effort.

KRI Template

Risk name	
Risk description	
Risk impact	
Risk probability	

The Risk Impact/Probability Chart: Threat Level



Risk response plan	

Building the KRI (key risk indicators)

The development of Key Risk Indicators has enhanced the prospects of business performance significantly and its usage has extensively evolved over time. Their immense potential in facilitating the business growth and excellence has contributed to its popularity in recent times. More and more organizations are building KRIs nowadays and benefiting from their use. Let us look at some of the key steps involved in the process of developing KRIs.

Detect the Risks

1. **Identify the risk involved.** The first step is to identify the risk involved in the business and to understand the root cause for the same.

2. **Measure the effectiveness of identified risks indicators for the business.** These can be measured by basically two tools:
   - Gap Assessment: It uses seven dimensions, (namely- measurement frequency, levels of trigger, criteria for escalation, lead or lag, ownership of metrics, availability of historical data and accuracy of the data source) which are rated 1 to 5. It helps in judging the effectiveness of KRI.
   - Design Matrix: It is a matrix which shows the relationship between various risks indicators and their causes. It is a qualitative tool.
3. **Improve risk indicators.** In this step various risk indicators are tested against the tools i.e. Gap Assessment and Design Matrix. After that the not so strong risk indicators are removed from the list. The list is reduced to a maximum of five KRIs.

Analyze the Risks

4. **Validate the risk indicators and identify the trigger level.** The process of validation deals with statistically analyzing the historical data of risk and the KRI. In case historical data is not available, a proxy event driver can be used. The resultant correlation between the event driver and the KRI guides in setting the trigger levels. In case, validation is not required for the data, trigger levels can be obtained on the basis of business requirements.
5. **Design the Dashboard Reports.** Dashboards usually use graphs, tables etc and help in the better understanding of the KRIs in particular and the entire business situation in general. It helps the management to review the actions taken and to adopt appropriate controlling measures.
6. **The plan of control.** It is a brief summary of all the actions and the specifications with regard to the KRI. The control plan helps the management to take up a series of predefined and appropriate steps each time a KRI is triggered in the business.

   The aforementioned theory can be utilized by businesses in developing the KRIs. Either a top- down or a bottom – up approach can be used, depending on the business scenario and the prevailing situation.

How to use KRI (Key Risk Indicators)

In the corporate world, risks and opportunities go hand in hand as risks can sometimes prove to be the stepping stones towards an impending opportunity, and different opportunities often carry prospective risks. The effective management of risk will prevent project failures and reduces credit risk and also averts malevolent activities from occurring.

Dealing with risk opportunities

Considering risks as opportunities paves way for further growth for a business organization and increase efficiency in the process. The foremost step to be taken for managing risk and dealing with it is identifying and characterizing the risks involved and thereafter, strategizing ways to avert those risks and subsequently executing them.

Many organizations have their own risk management departments and frameworks integrated with their internal processes and enhancing their working by accelerating the continuity of such processes and derive maximum benefit. Strong commitment from the top management will facilitate the categorizing the risk areas, the timelines and requisite deliverables, allocating capital and resources for achieving goals and the subsequent review of the process.

The Enterprise Risk Management framework (ERM) in businesses involves the methodologies and procedures used by organizations to manage their risks and effectively and grab opportunities arising out of such risks. Through positive identification of risks and opportunities businesses create value for the company stakeholders that comprises of owners, customers, employees and even society at large.

Potential risks and opportunities are generally derived from the operational department of an organization, which naturally contributes to overall success rate and efficiency. Furthermore, the probable risk involved varies as per industry verticals and involves diverse perspectives which in turn include the type of risk, the estimate and effective management.

Actions checklist

	Checklist
1.	Study the specific industry verticals for appropriate risk assessment and strategic planning.
2.	The key risk indicators established must be in sync with the company goals and complement the key performance indicators.
3.	Identify the risks involved and draw a risk management plan to avert those risks.
4.	Periodically assess and review the risk management plan.
5.	Integrate the plan into the management system for appropriate reference.
6.	The key risk indicators established must be an integral part of the decision making process.
7.	Develop clear procedures for effective communication of the risks and opportunities that can meet the internal stakeholder requirements.

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KRI (Key Risk Indicators) Dos and Don'ts:

Dos:
• Efforts should be made to use quantifiable KRI.
• The methods and approaches used in the development, implementation and maintenance of KRI should be consistent.
• A long term check of the KRIs should be maintained against the specifications and standards set.
• KRIs should be in sync with the objectives and goals of the organizations.
• Relate to risk owners: KRI should work in the favor of the stake holders, as prosperity of stake holders is one of the main objectives of any business.
• KRI should be able to measure up to a range of risk that may emerge in a particular domain of its coverage.
• The KRI must be adaptive and responsive to market dynamics.
Don'ts:
• While designing a KRI, Do Not induce unnecessary complexities in the risk measure.
• Although KRI should be simple, but it should not be too narrow as this would defy the very purpose of KRI. Do not make the KRI very limited in scope.
• Don't rely completely: Don't rely on initial KRI completely. It should be tested time and again for improvement and changes.

KRI vs. KPI and Balanced Scorecard

The key risk indicators and key performance indicators can be made to work in direct collaboration with each other to facilitate business growth and excellence as both of them are two different sides of the same coin. The key risk indicators provide an early warning signal to the management regarding the impending risks involved in a particular activity, the key performance indicators provide quantifiable inputs to enhance performance and enumerate the critical success factors vital to success in an organization.

Key Risk Indicators

Businesses have become more and more widespread and diverse and aim their strategies for enhancing the long term growth prospects and success. The utility value of the KRI is proven from the fact that they are instrumental in reducing the losses that are bound to occur without the initial risk management planning and building the framework. Careful analysis of the risk indicators enable the organization to convert the same to performance inputs and link them directly with the business goals and achieve higher business distinction. Although, accurate measurement of such risks is not feasible for any organization; however careful in depth enterprise risk management (ERM) will facilitate better internal control and planning that will prepare the organization for future perils. Further, care must be taken not to rely on such plans as they do not have a proven track record and keep them only as a reference measure.

Key Performance Indicators and Balanced Scorecard

The KPI or key performance indicators can be commonly defined as involving the use of inputs designed by the organization and management to gauge the performance ratings and direct them positively towards achieving the business objectives. Whatever the means are chosen, they must be the stems of the organizational inputs from which fruits of success evolve in due course. Moreover, the KPI must facilitate achievement of organizational goals and described simply to be easily followed and executed by the workforce. Furthermore, the theory of Balanced Scorecard provides metrics to measure the business performance and KPIs are a set of metrics designed to achieve the business goals. The KPI and Balanced Scorecard do not have much difference and differ only by means of metric use; however, since the depiction of the metric is quite abstract, the management must not blindly depend on them.

Overall, the key risk indicators and key performance indicators, both are vital to an organizational planning and objective strategizing along with the critical success of a business and hence, must be accounted for in the designing the long term plans of an organization.

Application of key risk indicators

The KRIs can be applied in numerous industry verticals, and when designed appropriately and applied reasonably, these indicators can prove to be fruitful in preventing adverse situations in business and facilitate apposite steps to manage it. Some of areas wherein the KRIs can be analytically applied are enumerated below for reference.

Application in Operations

1. Activities involved in carrying out business processes for creating value for the stakeholders and customers fall under the operations department of an organization. KRIs help the organizations to identify the key risks involved in operational processes of the business and facilitate taking up appropriate actions in order to minimize those risks. Dealing with operational risks is imperative for businesses in order to minimize losses, efficiently allocate the use of capital resources and to provide value to the stakeholders. Furthermore, the organizations need to comply with regulatory requirements like Basel II, TCF, and AML etc. The risks involved in operations include frictions in the internal processes, external events, employees, systems etc.

Internal process risks may involve issues like hierarchy system, organizational structure etc.

a. External events may include risks like non availability of finances and loans from the market, issues with suppliers of raw material etc.

b. Risks with respect to employees may include issues like employee turnover rate, overtime hours, degree of dependence on temporary staff etc.

c. Risks with respect to systems may include issues like data protection, user application problems, physical hardware problems etc.

d. Managing such operational risks resolves a great chunk of the overall problems faced by the business organizations and enhance business performance in total.

Application in Banking

2. Banks are financial institutional dealing with huge amounts of money and capital. The risk they face is not only financial but non- financial as well. This makes the use of KRI all the more inevitable for them. Some of the risk they face are:
    a. **Credit risk:** This occurs when the borrowers are not able to meet the pre-specified obligations.
    b. **Market risk:** This involves the risk of losses due to market volatility
    c. **Operational Risk:** These involve the risks faced by the banks in the daily course of their business activities. These risks could be human, financial, procedural etc.
    d. **Regulatory Risk:** Banks are supervised by a number of regulatory bodies like RBI, SEBI etc. And in order to run their business smoothly, banks have to abide by the regulatory norms of these regulators.
    e. **Environmental Risk:** This is the era of technological up-gradation, liberalization and globalization. Although these factors have helped businesses to grow but at the same time they have exposed the business houses to environmental threats e.g. Recycling of electronic goods and banks are no exception.

    The Key Risk Indicators help the banking institutions in overcoming and minimizing such risks.

Application in Finance

3. Finance is a very broad term which includes banks, microfinance institutions, stock exchanges, credit unions, insurers and moneylenders. In today's competitive environment the degree of risks they face has increased tremendously and hence the need of KRI has become all the more apparent. The risks faced by this vertical are:
    a. **Credit Risk:** These are risks which arise due to default on the part of the second party.
    b. **Market Risk:** These risks arise due to fluctuations in the market.
    c. **Liquidity Risk:** Such risks arise due to the chance of failure of meeting the commitments made by the financial institutions because of lack of liquid assets.
    d. **Operational Risk:** These risks relate to daily activities undertaken to carry out the business.

e. **Country risk:** These risks are country specific as every country has its own rules and regulations and a unique environment of its own.

f. **Legal Risk:** Financial institutions have to work within the legal framework that has been set for them by various regulatory authorities. Not abiding by these norms can create legal problems for organizations.

g. **Reputation Risk:** Each organization needs to work on its goodwill and has to maintain it in order to thrive. Without a good reputation organizations cannot survive for long.

Application in HR

4. Human resources are an integral part of any organization and hence HR issues also require the aid of KRIs to minimize risks. Risk is involved in each step of HR management. They are the following:

   a. **Analyzing the job requirements and giving descriptions for the same:** If the job requirements are not understood clearly, the very purpose of hiring fails.

   b. **Hiring:** The risk involved in this step is not to hire the right person for the right position.

   c. **Training:** If the employees are not trained well they cannot perform the job correctly and efficiently.

   d. **Employer and employee relations:** If there is friction between employees and employer, the work would be affected adversely.

   e. **Performance Appraisal:** It needs to be carried out correctly and regularly. It helps in recognizing the efficient employees and to found out the areas of weakness of the inefficient ones. It is great tool for motivating employees.

   f. **Compensation:** Employees need to be paid adequately in accordance with their work and performance. Otherwise de-motivation and low morale creeps in.

   g. **Discipline:** If the employees are not aware of the rules and regulations of the company, then they would not know what is expected out of them. This would lead to confusion and indiscipline in the organization which would affect the quality of work unfavorably.

Application in Logistics

5. **Logistics:** KRI also helps in minimizing the losses in logistics. The various risks associated with logistics are as follows:
    a. **Inventory:** These include risks like shortage and unavailability of inventory required. This could lead to further problems in production and manufacturing.
    b. **Carrier:** There is a risk of delays on the part of carriers, increasing the length of the time period involved.
    c. **Cost:** The cost of logistics keeps on changing with the market conditions. Hence it is necessary to keep a check on the market condition to assess the right cost from time to time.
    d. **Theft:** There is a risk or cargo and goods being stolen. It needs a high level on security to be maintained.
    e. **Congestion:** It involves the problem of heavy traffic which makes the whole process very slow. This again increases the length of the time period involved.
    f. **Delays:** Delays in the supply and procurement of goods can also create big problem for the business houses. E.g. It can affect the whole manufacturing process adversely.
    g. **Financial problems:** Logistics department can face shortage of capital and money.
    h. **Fines:** In case of non- compliance with the pre-stated norms and conditions the organizations can face fines.

Application in Business Process Outsourcing (BPO)

6. The number of BPOs in India has grown immensely over the past few years. It is one the fastest growing in industries in the Indian cities. They have generated large employment opportunities for youth of the country. But they also face various risks in their business process which needs to be taken care of. KRI has been helpful to the BPO sector as well in minimizing their risks and therefore losses. Some of the areas of risk management are:

a. **Knowledge of the outsourced process:** The BPOs must understand the process and the expectations of the clients clearly. Lack of understanding can lead to the loss of the process by the BPO to some other competitor.
b. **Analyze the process:** The process needs to be analyzed carefully and the complexities need to be simplified. Only then it can be carried out efficiently.
c. **Cost:** The cost incurred should be minimized in order to make profits and pay employees well. Without this the very purpose of carrying out any business fails.
d. **Appropriate technology:** The BPOs need to use the best technologies to carry out the process successfully. Only then they can stay ahead in this competitive industry.

Books and website references

There have been quite a few books and research papers written about the Key risk indicators and balanced scorecards and a plethora of web pages and online reference material too are available on the subject. Furthermore, even companies themselves have posted quite a bit of information regarding risk management and performance metrics and the reference material is inclusive of material that enumerates the success rates owing to such studies.

Books:

- Performance Management: Integrating Strategy Execution, Methodologies, Risk, and Analytics (Wiley and SAS Business Series) by Gary Cokins.
- Key Performance Indicators (KPI): Developing, Implementing, and Using Winning KPIs, Second Edition by David Parmenter.
- The Balanced Scorecard: Translating Strategy into Action, by Robert S. Kaplan and David P. Norton.
- COSO Enterprise Risk Management: Understanding the New Integrated ERM Framework by Robert Moeller.
- The Essentials of Risk Management: Effectively implement an enterprise wide risk management program; allocate capital and measure performance and learn the very latest in risk management by Michel Crouhy, Dan Galai and Robert Mark.

Websites:

- (http://fic.wharton.upenn.edu/fic/papers/99/9942.pdf)

  The Key to Risk Management: Management
- (http://www.sas.com/industry/energy/dashboard.pdf)

  Effective risk management
- (http://www.cutcher.com.au/files/docs/Business%20Digest/Business%20Digest%20Oct09.pdf)

  Investing in KRIs to improve business
- (http://www.aon.com/about-aon/intellectual-capital/attachments/risk-services/enterprise_risk_management_enhancement_white_paper.pdf)

  Understanding Enterprise Risk Management
- (http://findarticles.com/p/articles/mi_m0ITW/is_6_90/ai_n31396422/)

  Developing KRI for Businesses