

## The anatomy of Business Process-specific Key operational Risk Indicators

**Business Process-specific Key operational Risk Indicators are the key to proactive operational risk management, says Jee Meng Chen, Operational Risk Management, United Overseas Bank Ltd.**

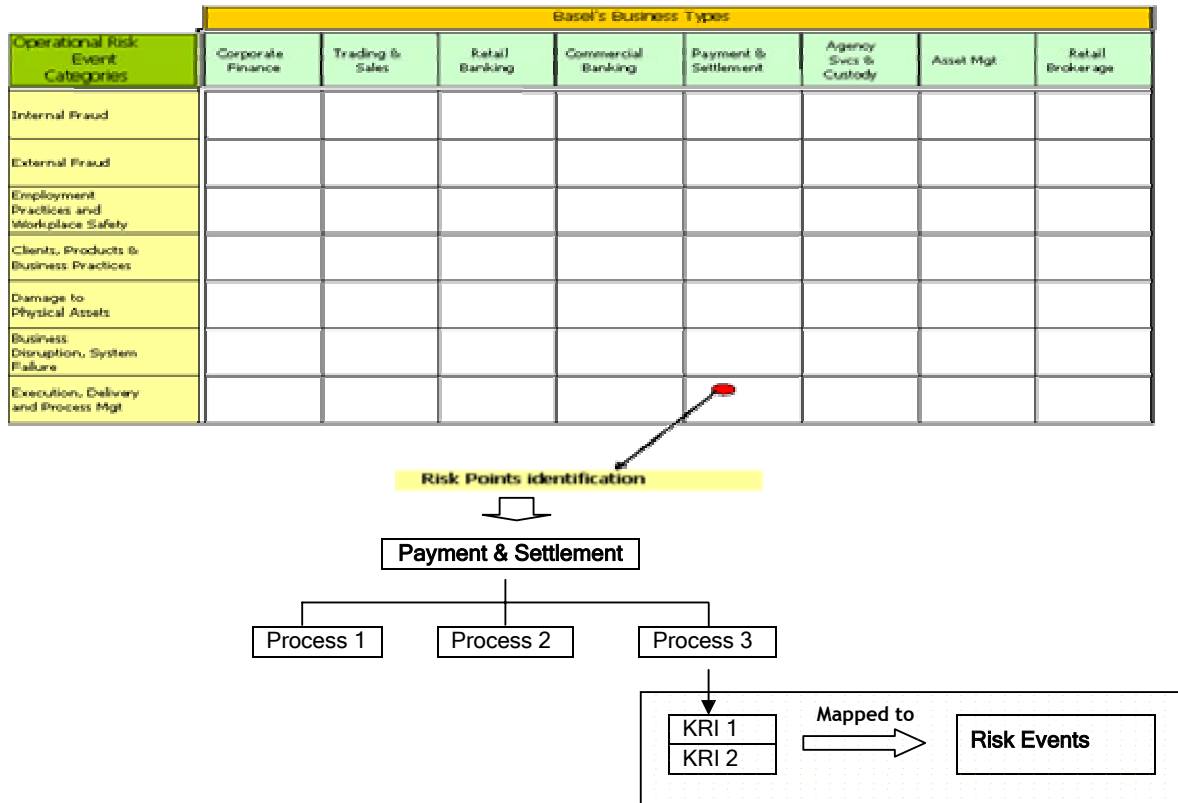
### Introduction

The prevailing literature on Key Risk Indicators has largely focused on what are commonly referred to as **Generic Indicators**, which are indices that track and measure risk items such as operational losses, policy exceptions, unresolved audit issues, etc. While generic indicators are generally acknowledged as a useful risk management tool, they offer no more than a broad coverage of operational risks. It has also been pointed out that generic indicators merely identify risk on an after-the-fact basis. The key to proactive operational risk management lies in 'Business Process-specific Key operational Risk Indicators' (BP KRIs), where the risk identification efforts focus on the idiosyncratic business risks of functional processes. The purpose is to identify potential high-risk hotspots and to anticipate a potential problem before it occurs. A review of contemporary literature, however, indicates limited discussion on the concepts underpinning BP KRIs. Part one of this article reviews the general applications and the fundamental concepts underpinning the development of BP KRIs.

### Applications of BP KRIs

1. Financial institutions need to ascertain the risk profile of each Basel-defined business type by evaluating the possible risk events, that is, loss cases, which may possibly occur. Operational risk capital charge will be allocated on the basis of the business unit's residual riskiness. For precision in risk identification and measurement, financial institutions could leverage BP KRIs, as these indicators are context sensitive; that is, they closely mirror the inherent risks of business processes (refer to Diagram 1, below).

Diagram 1



2. The development of BP KRIs involves a comprehensive risk assessment process. To illustrate this, let us take an example of a Private Banking (PB) unit. In this illustration, we will examine the thought processes involved in the identification of one indicator: Number of Corporate Actions (Time Critical Items).

In determining the relevance of risk indicators, the PB unit has to perform a scenario analysis, which in essence, sieves out the genuine from 'phantom' risks. The unit's decision to track and monitor corporate actions stemmed from the potentially high financial impact as well as reputational ramifications arising from staff negligence to promptly act on corporate actions. Notwithstanding that, there were no loss cases to substantiate the probability of occurrence, this does not invalidate the usefulness of the indicator <sup>1</sup>. The potential severity can be estimated using historical parameters such as (i) notional value of transactions and (ii) market prices of shares, for instance.

The next logical step, then, is to analyze, "What Can Possibly Go Wrong?" This would inadvertently lead to a systematic review of functional inter-dependencies between business units [Pointer 1 - operational lapses often manifest in business processes that cut across business units].

**Table 1**

Indicator	Number of Time-Critical Items (Corporate Actions)	
Probability Analysis	1(a)	Frequency: Infrequent
	1(b)	Severity: Severity is dependent on the nature of the underlying item. The Bank is liable for losses.
	1(c)	No. of cases: Currently, no instances of occurrence
	2	<b>Potential Loss: No actual loss case. Based on historical transactions, the potential exposure associated with buy-back of an illiquid counter is approximately USD1million.</b>
Risk Mapping Analysis	1	Risk Event: Failed Delivery
	2	Casual Factors:
	(i)	<b>Failed communication process between the Securities Settlement Department and the Private Banking Department</b>
	(ii)	Private Banking officer failed to escalate transaction for higher approval

Justification is necessary to avoid the identification of a phantom risk.

Identification of Functional Inter-dependencies

The skeptical practitioner would probably be thinking, “Does this help identify risk?” To answer this question, let us assume that between the period January and May 2005, there were no transactions involving corporate actions. Under such circumstances, the management of PB would probably be concerned that, given the infrequency of corporate actions, Relationship Managers may forget the requisite operational tasks upon receipt of a corporate action item from the Securities Settlement Department. Therefore, as part of proactive risk management, Relationship Managers should be given ‘refresher’ briefings on corporate actions periodically [Pointer 2 - The absence of data does not necessarily indicate the non-existence of risks]!

## Development pointers

In development of BP KRIs, the practitioner should take note of the following pointers: -

1. Are KRIs a crystal ball?

When we say that an indicator is “predictive”, what does it really mean? While BP KRIs may offer insights into future loss events, it is erroneous to equate BP KRIs to a crystal ball. BP KRIs seek to identify potential risk areas and/or issues which provide insights into a bank’s risk position. Conceptually, these indicators are akin to an early warning system, like a smoke detector. The purpose of a smoke detector is to pick-up traces of smoke, which may indicate a fire outbreak. However, as to whether the smoke originates from a harmless source or a raging fire, it could only be determined upon further investigation. This implies that the ‘predictive capability’ of a risk indicator is as good as the ‘accuracy’ in the identification of potential operational hotspots. While this sounds logical, do we always know our risk gaps?

2. What risks to focus upon - the expected or unexpected?

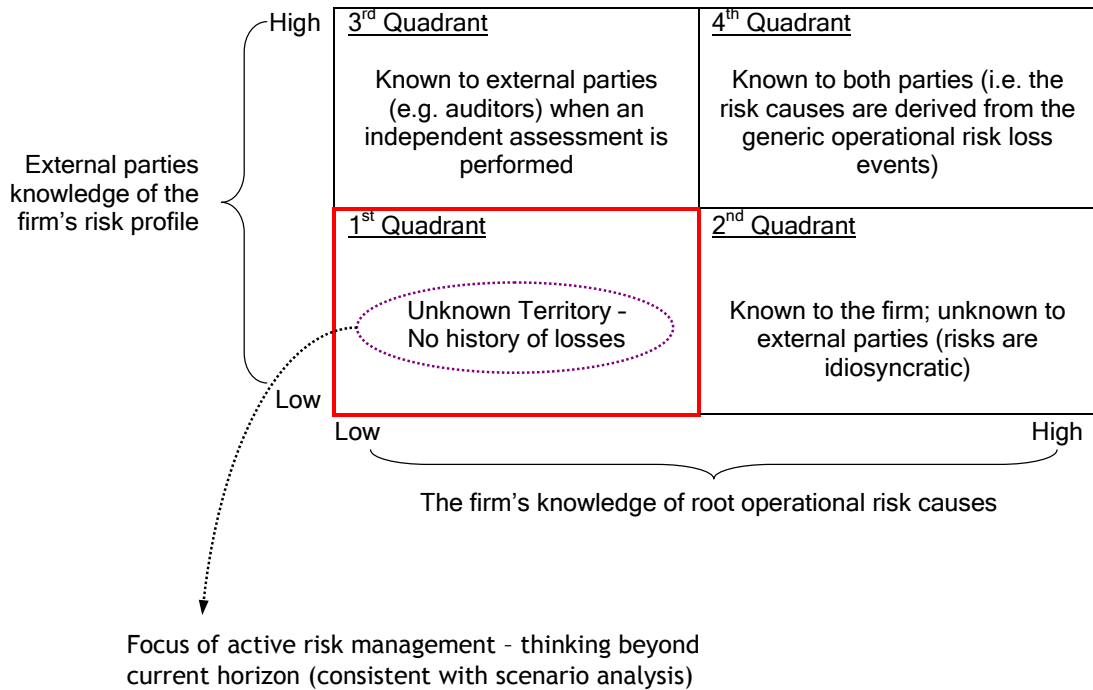
Whilst it is conceptually ideal to develop risk indicators from known cases of loss events, there are, however, practical limitations. A financial institution may not have a good database of internal loss events to start with. Perhaps, then, the next-best solution is to rely on external databases. But this may not necessarily facilitate the development of risk-sensitive indicators because each institution’s functional processes are probably idiosyncratic. Besides, a careful examination of publicly available information reveals that the determinants of reported losses generally revolve around similar risk causal factors. And there is a potential danger that the unsuspecting risk practitioner may fall into a complacency trap: “Is there anything else that we don’t know?” On the contrary, what we know, may probably be just the tip of the iceberg.

Thus, we need to re-examine a fundamental question, “What risks should we focus upon?” Although this appears to be a basic question, it remains an issue that risk practitioners continuously grapple with. It has been highlighted that KRIs are inadequate in tracking certain risks, which may, however, lead to significant losses. A good example is, “The lack of an indicator to identify flawed segregation of duties.” That said, we need to be cognizant that KRIs are not designed to track risks that cannot be readily measured. Therefore, we should be asking two intertwining issues:

- “***WHAT*** risks are we attempting to prevent?
- Should our focus be centered on the (i) known causes or the (ii) unexpected causes?”

[Note: If the intent is to engage risk issue proactively, risk practitioners should ‘think out-of-the-box’. Refer to a modified version of the Johari Window, Diagram 3, below.

Diagram 3

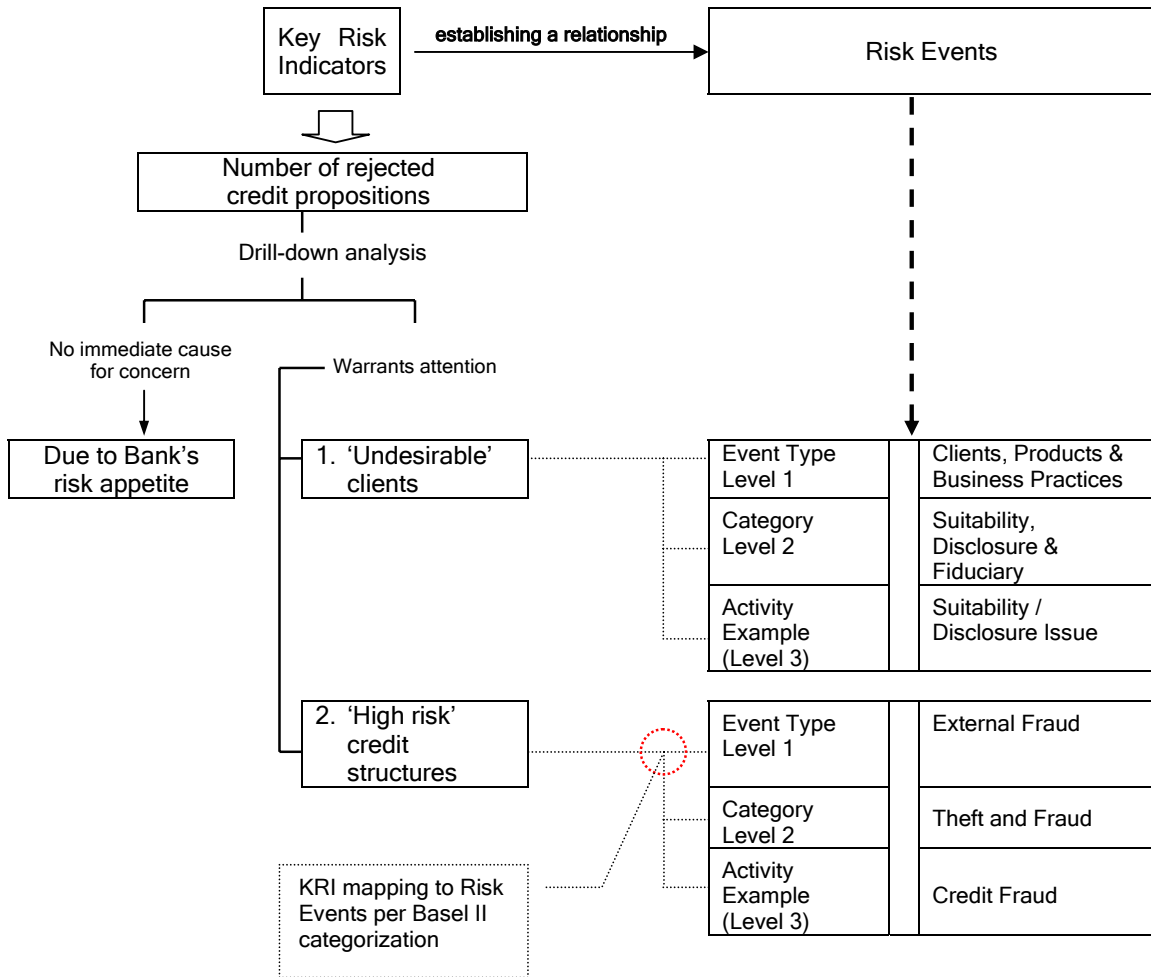


3. Relationship between KRI and Risk Events

Practitioners should be cognizant that the relationship between an indicator and a risk event type is not single-dimensional, as a KRI could relate to one or more risk event types. To illustrate this concept, refer to the following example:

Say, a trade financing bank decides to monitor the number of rejected new credit propositions on a month-on-month basis to determine (i) if there are a significant number of rejects and the (ii) rationale for rejection. As depicted in Diagram 4, the indicator, Number of rejected credit propositions, may be linked to different risk events, namely, (i) Suitability / Disclosure Issue and (ii) External Credit Fraud. As such, it would be technically incorrect to correlate an indicator to a single (specific) risk event.

Diagram 4



While risk indicators are not new to the business of operational risk management, the capacity of these indicators as a risk management and measurement tool may not have been fully exploited. Banks should, indeed, be thinking twice before closing the door on risk indicators.

*Part two of this article will follow at a later date.*

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