Risky business

How much risk to take is a major business decision. Below **Ruth Murray-Webster** and **David Hillson** help demystify the 'risk' terminology, and outline a five step plan for setting your own organisation's level of risk

The key question confronting senior management teams and boards is, 'How much risk should we take?'

It's an all-important issue to resolve, if good decisions are to be made in risky situations. However, in recent years a bewildering variety of terms have been used in attempts to answer this question (eg, risk appetite, risk thresholds, risk tolerance, risk propensity, risk attitude, risk preference, risk capacity, and so on).

We will attempt to define and clarify the more meaningful of those terms, and set out five practical steps that will help you decide how much risk you should take across your organisation.

First of all, it is important to define risk appetite and risk thresholds.

RISK APPETITE

A commonly-used phrase in connection with this topic is 'risk appetite', which appears prominently in UK corporate governance requirements and elsewhere. Unfortunately there is no agreement on what risk appetite actually means.

This is a problem, given that the boards of listed companies have a responsibility to report on risk appetite as well as other risk controls. This is complicated by use of other terms (as mentioned earlier) as if they were the same thing as risk appetite. No wonder people find it hard to answer the question when there's confusion over basic terminology.

So let's start with risk appetite. Like physical appetite it is a measure of how hungry we are to take on risk. Appetite for food is difficult to describe because there are no units for measuring the feeling we call appetite. Instead we translate our hunger into something external that can be measured – for example "I could eat a horse". These physical items act as proxies for appetite, allowing it to be assessed, compared with available resources and capacity, and satisfied (or not).

The same is true of risk appetite. It is a gut feeling experienced by an individual, group or organisation, reflecting how hungry they are to take on risk. But there is no way of measuring this tendency; instead we need to translate it into something tangible. This is the role of risk thresholds.

RISK THRESHOLDS

Risk thresholds are measurable external expressions of an internal risk appetite. And just as risks must be related to objectives, so risk thresholds are related to these same objectives, representing acceptable variance around each objective. (Some people call this risk tolerance.) If the objective can be measured in financial terms, then so can the thresholds as proxy for appetite. For example a company may set an objective of achieving a target margin of 35% on all sales but with a minimum level of 30%. If the objective is measured in non-financial terms, the quantification of thresholds will follow the same units (eg, targets about percentage of customer satisfaction).

> Risk appetite, like physical appetite it is a measure of how hungry we are to take on risk

FIVE PRACTICAL STEPS TO DECIDE 'HOW MUCH RISK?'

The first two steps in deciding how much risk your organisation should take are:

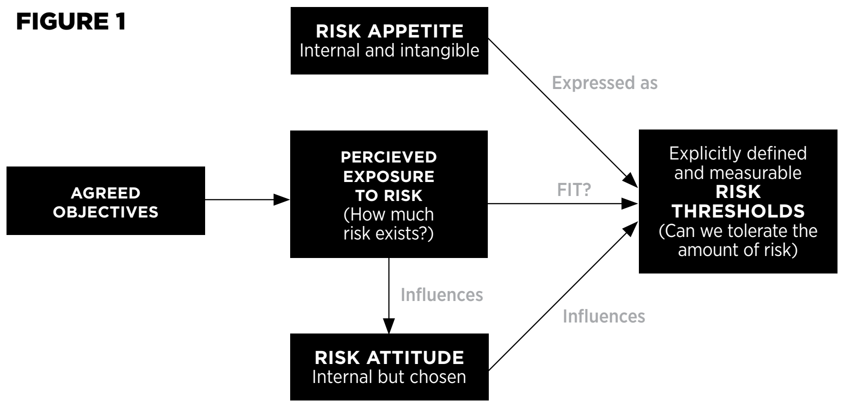
1. AGREE OBJECTIVES

2. AGREE ACCEPTABLE VARIANCE

It is important to discuss and agree the acceptable variance around each objective. Let's take the example of a medium-sized privately-owned

CORBIS

FIGURE 1



manufacturing company. The senior management team has a series of corporate objectives around growth, profitability and staff satisfaction (measured as attrition rates).

It is relatively easy for executives to agree targets and variances to represent their tolerance for risk to those objectives. The senior team also wants its managers to consider how much risk they can take, so the senior team works with direct reports to agree objectives, targets and thresholds. The managers find that defining acceptable variances around each of their objectives is a really useful step because it starts a discussion about uncertainty and risk, rather than pretending that it doesn't exist or relying on gut feel and hoping for the best. The targets and thresholds around objectives act as proxies for risk appetite: they tell managers how much risk it is OK to take.

So far so good! In simple terms that's all there is to setting risk thresholds. But we need to set appropriate risk thresholds, so how do we decide what is appropriate? There are two parts to judging acceptability, and these form steps three and four respectively:

3. RISK THRESHOLDS

Checks should be made to see if the perceived risk exposure falls within the risk thresholds. This sounds easy, but it relies on having an approach to risk identification, prioritisation and management that allows an assessment of the combined exposure of risks to objectives to be carried out.

The company in our example uses a standard approach to risk analysis that follows the international standard ISO31000:2009. This means that it identifies risks and assesses each one to establish its priority, based on probability and size of impact on the objectives defined earlier. For example, the company wants to understand threat risks that could result in the staff attrition rate increasing out of tolerance range, or opportunity risks that could result in higher growth levels than anticipated. Each individual risk can be assessed and prioritised, but this doesn't help the company know whether the perceived risk exposure is within overall thresholds. To know this it needs to look at the combined effects of individual risks. This is the risk evaluation step in ISO31000:2009 and to get the appropriate outcome, will ideally be facilitated by people skilled at teasing out the relationships between risks (eg, Can they be aggregated? Which are mutually exclusive? Which are correlated so that if risk A occurs, so must risk B?).

What businesses want is a sense of how much risk is within thresholds (ie, represents not too much risk, or – alternatively – an understanding that the existing risk threatens or overstretches a particular objective).

Risk thresholds provide a means of checking if our actual exposure to risk is acceptable. If the amount of risk is not acceptable then decision-makers can choose to invest resources on risk treatments (responses) now to make the situation more certain.

But there's a complication. Step three is to check whether the perceived risk exposure falls within risk thresholds – this is because human assessments of whether and to what extent risks exist are directly influenced by our attitude to risk, which in turn is influenced by a wide range of factors.

Most people are familiar with terms like risk averse, risk tolerant or risk seeking. These are risk attitudes that describe chosen responses that individuals and groups can adopt when faced with a given risky situation. The key word here is 'chosen'. We decide if a situation is risky, to what degree, and what we'll do about it. All these decisions are based on our highly subjective perceptions of the situation. So to deal with this, there's a fourth step:

4. UNBIASED JUDGMENTS

Perceptions must be challenged to ensure judgments about exposure and thresholds are not biased by the risk attitude of key stakeholders. Skilled facilitators make it easier for decision makers to navigate the risk analysis and management process and avoid the pitfalls presented by psychological biases. As shown by the body of literature on behavioural economics, it is all too easy for bias such as groupthink (see F&M 193), the anchoring bias, where decision making sticks to a single piece of information, or the illusion of knowledge to skew the process so managers pay too much attention to factors that are irrational.

There is also the danger of cultural organisational factors such as the hierarchy, or lines of command to get in the way of the decision – for example if the most senior person has a strongly held view.

There are many influences on risk attitude, but the outcomes exist on a spectrum that ranges from highly cautious behaviour/discomfort with risk to high comfort with risk/risk-seeking behaviour. The risk facilitator helps select the appropriate attitude for a given situation.

The company in our example considered that the risks to staff attrition rates were such that its upper risk threshold would be exceeded if all the risks actually occurred (ie, the company would have greater attrition than it could tolerate). This was not acceptable as the company believed retaining skilled staff was essential to meet growth and profitability targets. In this example, the company did not want to change its risk attitude – it was not comfortable with the evaluated level of risk – so its only option was to think of ways of reducing the levels of risk through incentives for staff to stay. Defined risk thresholds around staff attrition allowed the company to look at the cost of risk treatments and evaluate the business case for investing in incentives.

HOW COMPANY X USED THE FIVE-STEP PROCESS IN ITS DECISION ON INTERNAL CAPITAL INVESTMENT TO BUILD A NEW IT SYSTEM.

1. Agree objectives

In this scenario, the business had three objectives:

- Deciding how much money to invest.
- Finding the optimum time frame for designing, building, testing and commissioning the new IT system and decommissioning the old.
- Reducing the operational costs of running the new system compared to the old.

2. Discuss and agree acceptable variance around each objective

The investment committee set variances around each objective, which were communicated to the project team as targets.

Part of this discussion was the relative priority of the three objectives, determined – and sensitivities calculated – as part of the investment appraisal using discounted cashflows.

3. Check if perceived risk exposure falls within the risk thresholds

The project team carried out a risk analysis and exposure did not fall within the risk thresholds for capital expenditure and time, although there was greater certainty about the benefit – reduced operating expense. Additional capital expenditure and time however reduced the net present value of the investment and extended the payback period.

The investment committee was not happy. It was convinced that the project team were being overly pessimistic in identifying the amount of risk they had. The project team believed its sponsors in the investment committee to be showing delusional optimism about what could be achieved.

Initial discussions resulted in stalemate with both parties sticking to their original position

4. Challenge perceptions to ensure unbiased judgments

It was decided to use a skilled risk facilitator from the company risk team to help the players determine what was real, and what adjustments could be made. Estimates were double-checked, with specific risk events mapped to work packages as far as possible. Responses to some of the key risks were agreed, reducing the exposure to capital overspend. It was also agreed that the thresholds for capital expenditure were correct – the company had little capacity to support a major overspend. However they agreed to widen the tolerance for schedule overrun as long as the capital expenditure stayed within tolerance. The impact of a delay to benefits could be tolerated more than the cash impact of outlaying a greater investment up front.

The senior management reluctantly accepted that some of the risks were real and needed to be managed.

Meanwhile the facilitator was able to engage the project team and encourage it to identify, own and manage risks. As a result the team gained a greater insight into the relative priority of the objectives and knew where it needed to focus its future efforts – to be more risk averse to cost overruns than it did to schedule delays that did not cost additional money.

This outcome could have been achieved without a neutral facilitator if the parties had been able to 'step outside' their pre-conceived positions and challenge one-another. In the situation, a facilitator provided a safe environment for people to challenge, and change their minds.

5. Choosing a risk attitude

The risk management process needs to be continually worked on so that exposure is up to date and thresholds around objectives reflect the current organisational context. This can be the most difficult step for some organisations, but it can be achieved if enough focus is given to proactive and anticipatory risk management that incorporates the management of risk appetite and risk attitude as well as the more usual process steps.

It may be that the company in our example experienced a down-turn in business in the recent past that makes it overly cautious; or it may have experienced a long-ish period of low staff attrition leading it to believe it offers a great place to work, when in fact staff would leave if other opportunities were available.

A challenge to underlying perceptions, and their influence on the risk attitude of the decision-maker(s), will make the step 3 judgement – whether perceived risk exposure falls within risk thresholds – more robust.

If perceived exposure is greater than risk appetite, then one response is to change risk attitude and adjust thresholds so they represent a modified level of comfort with the risk in the situation. Because risk attitude can be chosen it allows risk thresholds to be modified to support appropriate risk taking. This helps ensure we don't take on too much risk in a given situation, and have the best chance of achieving our objectives. This leads to a fifth and final step:

5. RISK ATTITUDE

Ensure there is an ongoing fit between risk exposure and risk thresholds by choosing a risk attitude that focuses on achieving the right amount of certainty in a given situation. Figure 1, left, shows the relationship between agreed objectives, the perceived exposure to risk in the situation and the risk thresholds that, we argue, need to be defined and measured to ensure the fit between risk taken and appetite for risk is ongoing. We show how risk thresholds are the expression of an internal, intangible risk attitude, and that their appropriateness can be validated by decision-making groups having a process for understanding and managing their risk attitude.

SUMMARY

So both risk appetite and risk attitude are central factors in setting appropriate risk thresholds, playing distinct but complementary roles, as shown in Figure 1. Risk appetite provides the initial settings for risk thresholds, but these are modified by the active choice of risk attitude.

Setting risk thresholds matters because organisations need to set boundaries for risk taking, motivating decision-makers to make better, more consistent decisions. This can only be achieved through a robust approach using both risk appetite and risk attitude to set appropriate risk thresholds. Only then can we genuinely answer the question, 'How much risk should we take?' ■

Ruth Murray-Webster and **David Hillson** apply risk-based thinking to organisational change. Their work on risk attitude explains how to promote appropriate risk taking using applied emotional literacy. To find out more visit risk-attitude.com
A Short Guide to Risk Appetite: How Much Risk Should We Take will be published in 2012 by Gower Publications.