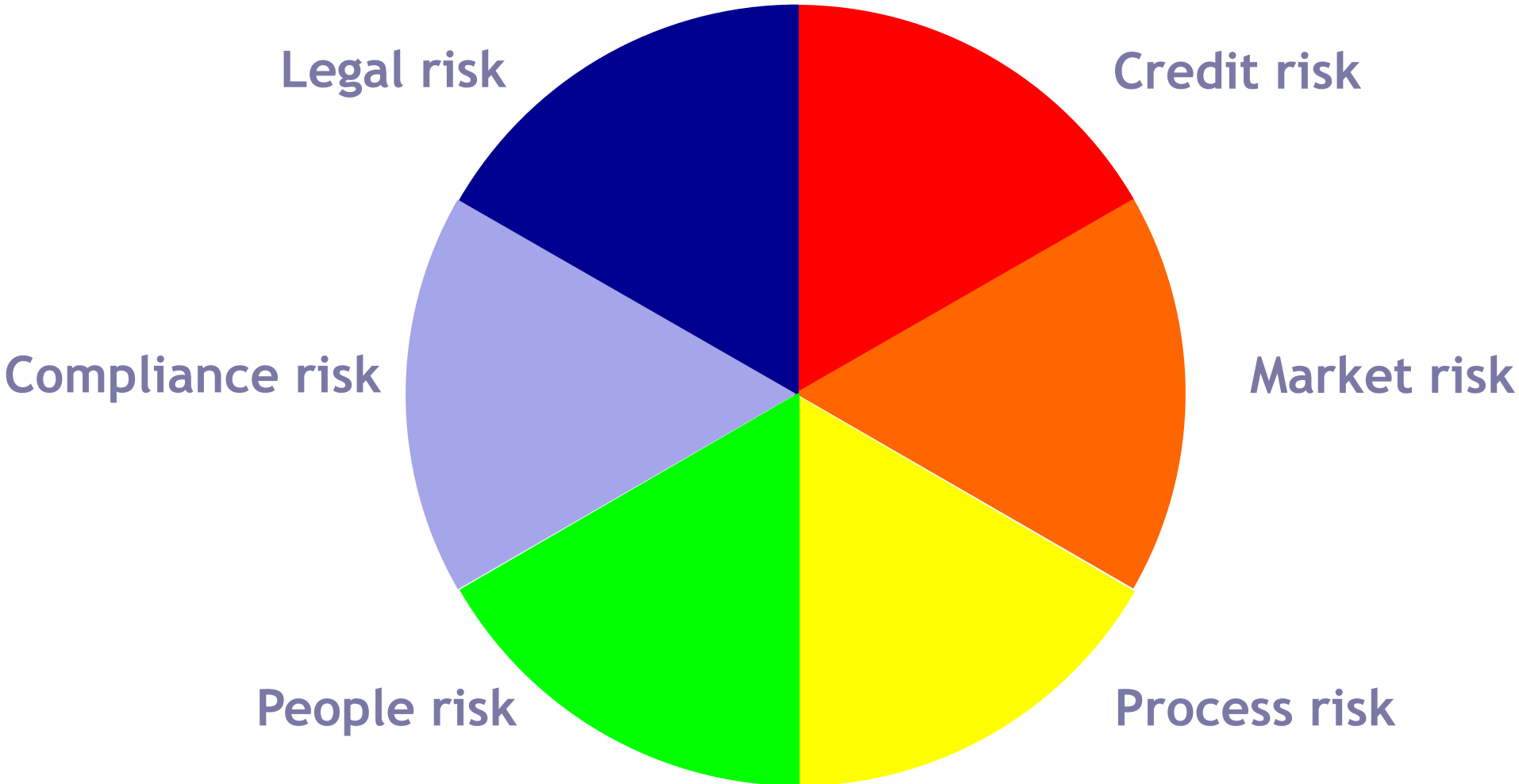


Managing operational risk

*An example of the use of systems thinking
to help formulate effective policies*

The Silver Bullet Machine Manufacturing Company Limited

The circle of risk



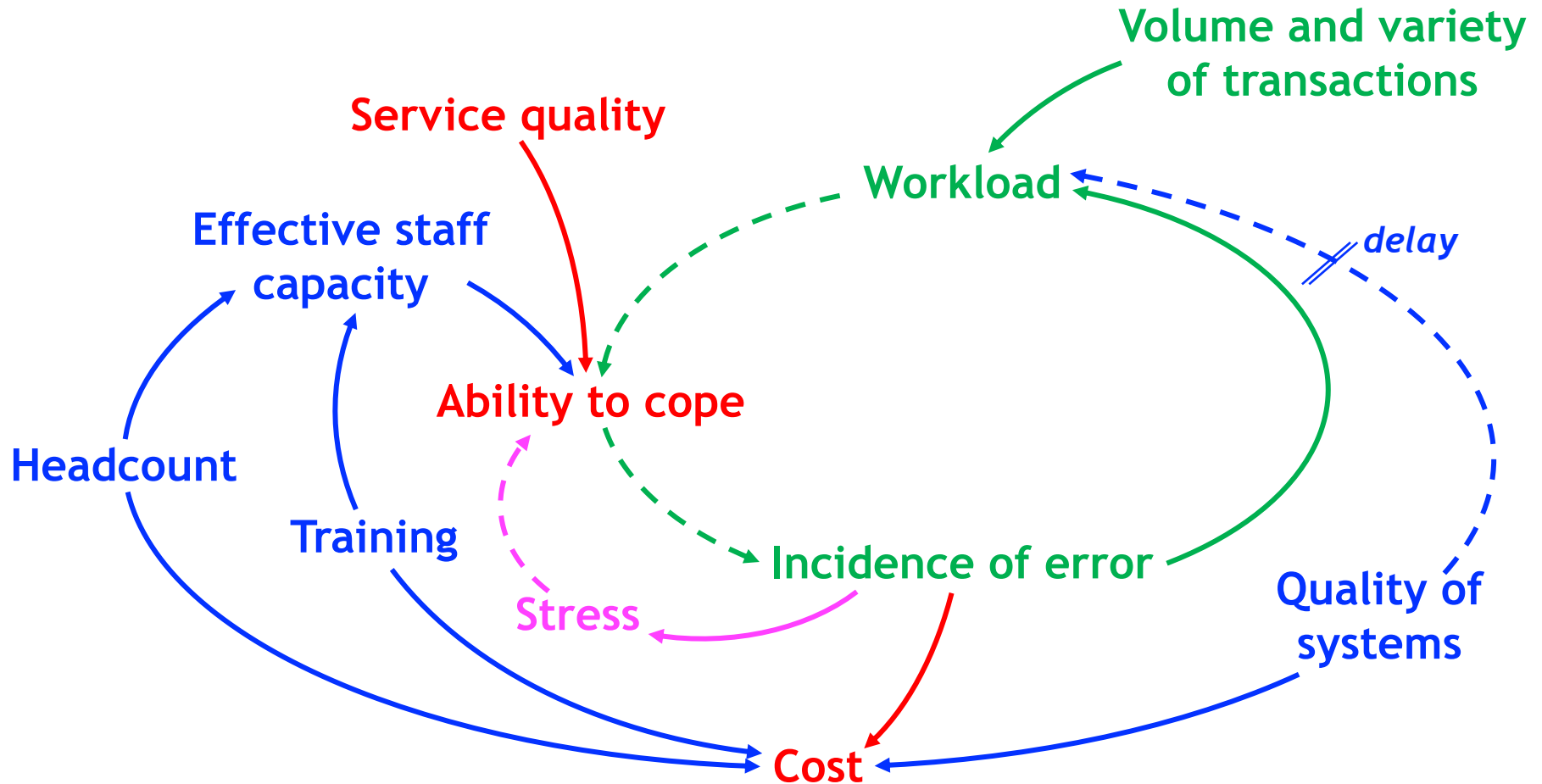
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Managing risk

- The successful management of risk is critical to banking. Risk, however, is manifest in a variety of different ways, and different risk management methods may be used accordingly. One way of classifying these different risks is shown on the facing page.
- **Compliance** risk represents the risk of failure to comply with regulations or market rules. This is managed primarily through training and monitoring. **Legal** risk represents the risk of failed contracts, and is managed primarily through the mechanisms of legal negotiation in the context of national contract law.
- **Credit** risk represents the risk of a counterparty's failure to honour its obligations, and, *in extremis*, bankruptcy. Credit risk is managed through credit control, in the context of bankruptcy laws. **Market** risk represents the risk of loss on trades and positions, and is managed primarily through 'rocket science', regulatory constraints, and internal policies on position taking, exposure limits and hedging.
- **Process** risk is the risk of failure in a process or a system, and is managed primarily through the disciplines of project management during development, and training, supervision and the exercise of internal control during application. **People** risk is the risk of deliberate fraud, or inadvertent error. It is managed primarily by building a good environment of internal control, by training, by avoiding stress and overwork, and by the organisational culture. One definition of **operational** risk is the combination of process and people risk.
- These definitions of the different types of risk are not mutually exclusive, but merge into one another. All need to be managed consistently.

A model of operational risk



The closed loops *workload* → *ability to cope* → *incidence of error* → *workload* and *ability to cope* → *incidence of error* → *stress* → *ability to cope* form two very nasty vicious circles, which can cause the organisation to haemorrhage money.

What is the most pragmatic balance between, on the one hand, the costs of trained people and of good systems, and, on the other, the losses caused by errors?

A solid arrow indicates that the two variables linked by the arrow move in the same direction; a dashed arrow, that they move in opposing directions.

Managing the back office

- The key objective of the busy back office operations manager is to maximise the department's *service quality*, as achieved by optimising the department's *ability to cope* whilst controlling *cost*. The prime driver of the *ability to cope* is the *workload*, as determined by the *volume and variety of transactions*.
- One possible consequence of a reduction in the *ability to cope* - as, for example, might arise if there is a surge in *transaction volume* - is an increase in the *incidence of error*, thereby adding to the *workload*, further diminishing the *ability to cope*. This gives rise to a singularly nasty vicious circle.
- And there is a second vicious circle too, operating alongside, and at the same time as, the one just described: an increase in the *incidence of error* causes an increase in *stress*, reducing the *ability to cope* even more.
- This unhappy situation may be avoided in two ways. Firstly, the higher the *quality of systems*, the lower the *workload* on the operations function; secondly, the greater the *effective staff capacity*, the greater the *ability to cope*. The *effective staff capacity* itself is determined by the *headcount* and *training*, both of which drive up *cost*; *costs* are also incurred in systems development. *Errors*, however, are also costly.
- What is the optimal level of investment in *headcount*, *training* and *systems* so as to minimise the *cost of error*, given the inevitable uncertainty in the *volume and variety of transactions*?

Some thoughts on systems

- Good systems can help the operations function cope with widely fluctuating transaction volumes and variety; poor systems require the operations function to 'nurse' transactions through the process.
- A further way of reducing operational risk is to design similar systems for similar processes, and to have standard systems in all locations. This implies that operations staff can be mobile, and that the operational functions are not critically dependent on a small number of key people.
- Good systems are also self-controlling: as transactions are processed, relevant control information is produced by the systems themselves. This enables errors to be diagnosed, and allows managers to be fully in control.
- But good systems do not happen by accident - they need to be carefully designed. This inevitably takes time, and this is often in conflict with the commercial imperative to have the systems up and running quickly.
- **Where is the trade-off between fast-track development, and operational risk?**

Some thoughts on people

- Systems don't commit fraud; people do.
- Likewise, systems don't make mistakes; people do.
- The heart of operational risk is therefore **people risk**.
- People risk is very rarely audited: most auditors refer to 'systems audits', and their audit process is designed to identify system controls. Also, auditors are not trained to recognise or diagnose people risk, and the profession would run a mile from doing this - it increases *their* risk enormously.
- A major component of people risk is **human error**. The likelihood of error is increased by the complexity of the systems and processes, inexperience, inadequate training, fear, poor supervision, tiredness, sickness and stress. What hours do your people typically work? How does this compare to the hours worked by, say, an air traffic controller?
- A further risk is that of **fraud**. This can be reduced by familiar concepts such as segregation of duties, but is also reduced by enforcing job rotation, an 'open' culture and encouraging people to admit, rather than attempt to cover up, mistakes.
- And we must also remember that the concept of people risk extends way beyond the operations function, right throughout the entire business.



How might operational risk be measured?

- What is the **cost of error**? What is the bank's policy on a routine level of allowable error? If the actual level of error is greater than the allowed level, what are the causes of error? And what funds might be released by reducing the actual level to the target? How might these funds be best re-invested?
- What percentage of the time spent by operations staff is devoted to **executing transactions**, and how much to **control**? Does this vary by product or process? What is the balance the bank wishes to have? And what needs to happen to reduce the time spent on 'nursing' transactions?
- What percentage of transactions are processed '**first time right**'? Does this vary by product or process? What is the bank's policy? What needs to be done to increase the actual percentage?
- What are the levels of **experience** and **training** throughout operations?
- What statistics are routinely kept relating to **overtime**, **sickness**, and **stress**?
- How **mobile** are staff, from process to process, and from country to country?
- And overall, how do measure, monitor and manage our **ability to cope**?

Idea generation,
evaluation and
development

Making innovation
happen

Silver Bullet

Strategy development
and scenario planning

The Silver Bullet Machine Manufacturing Company Limited

Building ultimate competitive advantage

Building
high-performing
teams

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