

# Unlocking knowledge in organisations to enable innovation



Dr Shawn Cunningham

Although we know intuitively that knowledge is important for innovation, we often reduce this required 'knowledge' to highly technical concepts and specifications. When managing an organisation there are many other kinds of knowledge elements that must be combined, not only to create value products and services, but to design, deliver, maintain and serve the requirements of external stakeholders successfully.

Knowledge that enables organisations to innovate is mainly acquired in two different ways:

- In a solitary way, where knowledge is gained through experimentation and tinkering without much communication or interaction with external actors, or through a process of deductive reasoning, or both combined.
- By purposeful interaction with other people, specialists and knowledge sources.

A large part of the knowledge that an organisation needs is available internally from its engineers, managers, technicians and

others. Their knowledge is partially acquired externally through previous training and experience, and partially in a cumulative process based on learning-by-doing within the organisation. Internal knowledge is the main innovation resource of an organisation. However, organisations that innovate more frequently are better able to absorb new knowledge and learning compared to organisations that only innovate infrequently. Not all firms are able to tap into this internal asset, mainly because few firms are managed in a way that allows them regularly to reflect on their own patterns of behaviour or the trends affecting their performance. When the day-to-day emphasis is on survival or maintaining routines or procedures, the tendency may be to underinvest in purposeful innovation. This behaviour not only undermines the development of the internal knowledge base, but will also lead to underdevelopment of external networks of other knowledge resources.

When knowledge is acquired by interaction, the innovator learns from the deductions and experiments of others. Knowledge is typically dispersed within organisations and over societies, so as the economy becomes more complex, so the need to collaborate with others increases. Often the most important sources of knowledge are other manufacturing firms, customers, suppliers of inputs and equipment, and firms that provide specialised knowledge-intensive services, such as consultancy. Other external sources include business and professional associations, technology institutions, research centres, universities, government agencies and industry-supporting or developmental organisations.

There are three issues that management must address to reduce the costs of knowledge accumulation in order to encourage more innovation.

Firstly, management must support not only internal knowledge accumulation through deduction and experimentation, but must also **allow employees to engage with technical experts outside the organisation**, for instance by belonging to an industry or trade organisation, or by participating in technical events. This will reduce the costs of gaining access to knowledge outside the organisation.

Secondly, to enable employees to experiment with new ideas, **incentive structures must allow learning by doing** – failure must not only be accepted, but taking small risks should be encouraged. This may require that some tools, facilities, materials and time for trying out creative ideas are made available. It is best if this process is managed formally so that risks can be managed and learning can be optimised.

Lastly, management must give people the opportunity to **think and use deductive reasoning**. A management attitude of “don’t bring me a problem, bring me a solution” undermines the ability of teams to fully explore potential problems, bottlenecks and constraints. A problem is a valuable opportunity for an innovative organisation to combine existing knowledge and ideas with new ones. This can often be further stimulated by purposefully mixing the composition of teams beyond function and default demographics to fully explore different opinions, priorities and perspectives. Don’t let slip opportunities to involve as many employees as possible in thinking about constraints and opportunities. Many manufacturers that I visit tell me that they are too busy to have some staff spend a few hours a week reading up on an improvement opportunity, attending trade fairs, or spending time with colleagues discussing possible improvements. Constraints such as cash flow and capital budgets should be acknowledged, and people should be allowed to optimise within these boundaries.

In this article I have purposefully avoided discussing innovation aimed at improving products, processes and business structures. My intention has rather been to highlight the importance of the knowledge that exists within organisations that is often poorly understood and not fully utilised. If management can become more aware of how knowledge is accumulated, shared and further developed in their organisations, I am sure they will create a culture where innovative products, processes and market solutions emerge naturally.



***Dr Shawn Cunningham** is a partner in the international consultancy Mesopartner and a faculty member at USB-ED. His chief interests are improving innovation systems and the competitiveness of industries in developing countries, and applying complexity thinking that enables leaders to make decisions under conditions of uncertainty.*