



ROTTERDAM SCHOOL OF MANAGEMENT, ERASMUS UNIVERSITY

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The business school that thinks and lives in the future

Walking the knowledge tightrope

With "outside knowledge" looking increasingly attractive as a means of growing a business, firms need to be more skilful in identifying how, when and where they collaborate with external knowledge partners.

> The technology cycle is getting shorter, so is the time to market. This is putting pressure on industry to innovate quickly so that it can react to customer demands. This means that, to sustain their competitive advantage, firms can no longer rely on just their own internal R&D; they need to look at resources outside the company.

> Collaborating with external market players - such as start-ups, established rival companies, customers, academic intuitions, or individual experts firms can typically enrich their own knowledge base. Such knowledge sharing is underscored in the open

Making the right choice

Knowledge collaboration comes in various forms and depends on the type of relationship - from a strategic alliance, joint venture, merger or acquisition, to owning a minority share or providing venture capital a firm has with its external partner, and which governance mode is applicable. My recent research in this area indicates that in order to maximise the effectiveness and efficiency of external knowledge sourcing, firms need to carefully build and balance their "knowledge-sourcing portfolios". So how do they achieve this?

"...a higher diversity of sourcing modes increases the effectiveness with which external knowledge can be transferred."

> innovation model that promotes the exchange of knowledge, allowing firms to combine external resources with their own R&D department in order to accelerate innovation.

It appears that firms benefit most from investing in a portfolio with intermediate levels of technological relatedness. Furthermore, my findings indicate that a higher diversity of sourcing modes increases the effectiveness with which external knowledge can be transferred. Notably, every type of collaboration has its own characteristics. This means that the deployment of a particular type of collaboration strategy depends on a particular set of circumstances and conditions.

For example, corporate venture capital is mainly used in the early stage of a technology or product cycle to create a window on new technology. As a side note, we should not forget that providing resources, such as finance, research facilities or guidance, help the recipient grow the business, making it ripe for the investor to harvest its innovative knowledge - useful in developing products or technology, for instance - at some later stage.

On the other hand, a strategic alliance may involve a higher level of co-operation, but does not necessarily require an equity investment in the partner company. Often deployed in the research-hungry pharmaceutical industry, this collaborative strategy allows companies to join forces in the early stages of a new product or technology cycle, and means that they not only share the potential benefits but also the risks and costs, which could be substantial.

However, in the later stages of the development cycle, when a



product or technology is getting close to being released and when the risks and uncertainties are waning, an acquisition strategy may be more attractive.

Of course, it is important that all of this should be reflected in a company's knowledge-sourcing portfolio, which, by selecting the right mix of products and technologies, should aim to spread risks and payoffs at different stages of their development cycles.

Finally, there is a crucial organisational issue that could threaten a firm's knowledge strategy if not resolved. Although many companies have become aware of the importance of using different governance modes for external knowledge sourcing, often the management functions associated with these are still kept separate.

At a large European multinational, for example, management of R&D, strategic alliances, M&As and venturing activities are kept separate and managed through different departments, or even different organisational entities. However, experience shows that it is important for firms to look at their internal R&D development and their external sourcing activities as part of an integrated growth strategy in order to maximise the benefits from using a diversity of external sourcing strategies.

Let me shed some light on the reasoning behind this. As projects move through the innovation funnel, the need to adapt the governance mode may arise. For instance, when a technology matures, a firm may no longer wish to invest corporate venture capital in its partner. Instead, it may want to acquire the partner firm in order to gain exclusive access and rights to the knowledge embedded in this firm. Or at some point, a corporate venture capital investment in a partner may not be sufficient to transfer the expected knowledge. This might lead to the establishment of a strategic alliance to foster inter-organisational learning.

Now, effectively managing these dynamics in the knowledge-sourcing portfolio requires communication and co-ordination between the different departments and organisational units dealing with the management of strategic alliances, M&As and corporate venturing. This is where an integrated approach comes into its own as it offers the flexibility and speed needed to manage these strategic changes.

To recap, research illustrates that companies need to remain relevant and competitive in a cut-throat business by continuing to explore and develop new technologies and products. To

achieve this, they need to collaborate with external partners. One way of looking at it is that in the knowledge business 'no man is an island'. However, ensuring success demands a knowledge-sourcing portfolio that is diversified and well balanced, and an integrated growth strategy supported by an integrated organisation to maximise the efficiency and effectiveness of the knowledge transfer.

This article draws its inspiration from the paper Balancing your technologysourcing portfolio: how sourcing mode diversity enhances innovative performance written by Vareska van de Vrande and published in Strategic Management Journal 34; 610-621 (2013). http://dx.doi.org/10.1002/ smj.2031

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