

OPEN OR CLOSED INNOVATION?

» Companies use different approaches in pursuit of greater profits through R&D. **Keith Nichols** of independent research and analysis company Cambashi looks at the pros and cons of these approaches as well as a few emerging trends

Traditionally, many larger companies have adopted closed innovation through setting up R&D centres to discover, develop and commercialise innovative technologies. There are some challenges, however, to this approach, such as spending more on R&D doesn't necessarily guarantee success and it also promotes inward thinking where innovation is often based on what companies already know rather than what is available in the wider marketplace.

On the other hand, companies adopting open innovation are innovating in partnership with those outside their company by sharing the risks and rewards of the outcome and process. As such, open innovation is about finding opportunities on the open market and reducing the risk, cost and time associated with generating in-house intellectual property (IP).

However, very few quantifiable benefits related to open innovation have been published. Most are difficult to quantify, for example:

- The ability to leverage R&D on someone else's budget by paying a license fee or making an outright purchase.
- Looking outside the company provides access to many more ideas and technologies, some of which can provide the basis of breakthroughs when used to develop a new highly innovative product.
- Internal staff can be freed up to provide greater concentration on those innovations that are being carried out in-house. It provides a possible way of relieving bottlenecks in the process.
- The licenses or purchased ideas and technologies are already proven and the associated risks and costs have been carried by another company.
- Licensing or purchasing innovation avoids some, and can absorb at least half of, the R&D costs.
- Although not so obvious, it generates an 'outside-in' innovation culture that provides employees with access to a wider range of opportunities, some of which can bring breakthroughs if harnessed effectively.

TRADING INTELLECTUAL PROPERTY

The nature of companies and industries determine whether trading IP makes sense. At one end of the spectrum pharmaceutical companies developing IP require large, long term and risky investment and once established it is essential to differentiate them in the

market place. The benefits of keeping a tight hold of their IP can far outweigh the potential gains of exploiting its sales value in the global market.

At the other end, there are companies looking for additional returns on their IP by making it available on the open market. Buyers benefit from low risk factors and fast access to patents for an agreed commercial arrangement. This can range from a lump sum payment to a royalty payment attached to each sale where the IP is included.

There are three main commercial arrangements for IP:

- 1. Licensing of patents** — Some companies are increasingly looking for a return on their IP and are prepared to open it up to the marketplace. The big advantage for buyers is fast access to patents for a price, usually in the form of a fixed amount on each sale or in one or more lump sums independently of the sales performance, or some combination. In a recent acquisition of the Nokia Smartphone business, the remaining part of Nokia is leasing its patents to Microsoft for a fixed period, with the option to eventually purchase them.
- 2. Purchasing of patents** — A growing number of companies are turning to the purchase of patents as an obvious solution. For instance, Google recently bought more than 1,000 patents from IBM, Facebook purchased 650 patents from Microsoft at a cost of \$500M and AOL sold 925 patents to Microsoft.
- 3. Buying company assets** — If the skills and know-how required to leverage bought-in IP do not exist in the buyer company, it may solve the problem by acquiring the other company with its IP, staff, experience and assets. The number of company acquisitions is growing with many choosing this route to bolster innovation.

EMERGING TREND

Over recent years, established product companies have invested heavily in streamlining their development processes, providing highly effective sales channels supported by strong marketing operations to identify customer needs and establish the necessary brand awareness.

Of those companies that have the full development and go to market infrastructure, many also undertake R&D in-



house where it often consumes a large share of available investment. Only about 20 per cent of innovative ideas end up as marketable, profitable products.

Keeping ahead of the market on a limited budget is difficult when faced with such a high failure rate. This would explain why established companies are looking outside their own capabilities to realise their planned product developments. They are balancing the cost of purchasing IP from the market against the cost of home-grown ideas.

With an open innovation approach, much of the investment risk is carried by the IP seller – typically a smaller, start-up type of company that does not want, and possibly cannot afford, the cost burden of the full product company structure and its associated overheads. These innovative companies use their excellent pioneering skills to transform ideas into intellectual property they can license or sell.

COMMERCIALISERS AND INNOVATORS

These conditions are starting to divide companies into separate business models. Their edges may not be clearly defined yet, but they are adopting either an innovator or commercialiser structure. Some of the larger organisations carry both, but their internal structures are well defined and separate while being more business accountable, as if they were another subsidiary or internal company. In each case, and based on business needs, they will decide upon the approach to trading IP (e.g. licensing, purchasing or acquisition).

THE MIDDLE MEN

For those companies that embrace open innovation either partially or fully, the greatest challenge is being able to identify what is available in the market for sale or licensing and then evaluating it in terms of its fit to their product strategy. At the same time innovators need to identify companies to whom they can sell their IP. For either company, this can be an extremely time consuming activity.

For this reason, many use an intermediate company that finds or promotes IP, known as the IP broker. An example of such a company is yet2 who either buys IP from companies or puts buyers and sellers in touch. If an inventor or patent owner wants to monetise their asset, an IP broker can help by serving to connect the inventor or

patent owner with potential buyers.

For many, it will not be a question of open or closed innovation. Companies will run with a mixed approach. But open innovation is becoming easier. For those companies that want to develop innovative products that generate good profits, a structure is evolving to allow them to do this. Where it is needed, intermediaries are becoming established to join the two together and provide a set of services around channelling innovations towards companies whose business structure is based on open innovation. Markets are rapidly changing.

It can be a long process from ideas to profit and doing all of the innovation in-house can be limiting. To acquire part, or all, of your innovation needs from outside, can potentially create greater benefits for the company.

Increasingly, costs and performance associated with R&D operations are starting to get the same attention in the boardroom as do manufacturing, logistics and other key functions. Questions will be asked as to the effectiveness of the R&D spend, what effect it is having on product innovation and competitiveness, what contribution it is making to generating profitable revenues, how much of the investment is being wasted and what can be done to make improvements. The answer may be to increase the amount of open innovation. The overriding aim will be to get a progressively better return from its spend. It will not matter whether the approach taken is closed, open or some combination of both. However, to have a wider set of options to enable the best innovation to be included within product developments is a major step forward in removing previous barriers. Companies can then excel at delivering ideas to market with a well tuned development process, integrated marketing and its seasoned sales and support channels.

The likely future trend will be for more companies to manage their R&D operations as businesses. R&D commercial contributions will be measured in the same way as key performance metrics in other parts of the business. R&D spend is too significant to escape boardroom scrutiny for much longer. Boards will want to know how well the operation is performing in providing closely aligned innovation to the product road map so that it will eventually contribute towards profits. Whether an open, closed or mixed approach to innovation is taken will be a matter for the company tacticians.

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