

Chesbrough (2003)

The Era of open innovation

There is a change from closed (internal) innovation to open innovation (R&D cooperations).

Model of closed innovation:

Main argument: Successful innovation requires control

Process: companies generate their own ideas that they would then develop, manufacture, market, distribute and service themselves

Consequences: Companies need to invest in internal R&D facilities, researchers and resources needed for R&D projects

Problems: rise & mobility of knowledge workers, difficult for companies to control proprietary ideas & expertise, growing availability of venture capital, more complex & specialised R&D projects

Model of open innovation:

Main argument: It is often cheaper and better to 'buy' R&D outcomes than to develop them internally.

Process: Firms can commercialise external ideas by deploying outside pathways to the market, commercialize internal ideas through channels outside of their current businesses to generate value.

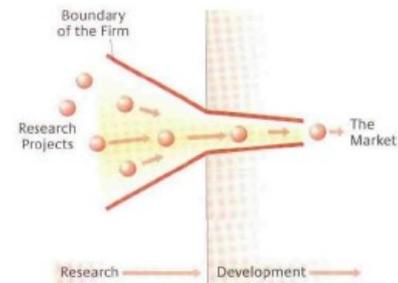
Arguments:

No longer should a company lock up its Intellectual Property, but instead it should find ways to profit from others' use of that technology through licensing agreements, joint ventures & other arrangements.

A company that is focused too internally is prone to miss a number of opportunities because many will fall outside the organization's current businesses or will need to be combined with external technologies to unlock their potential.

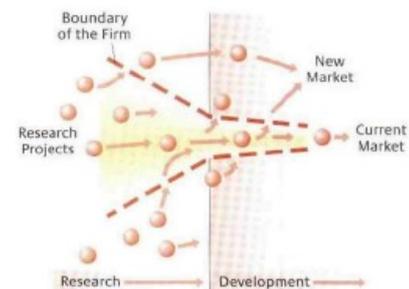
The Closed Innovation Model

In closed innovation, a company generates, develops and commercializes its own ideas. This philosophy of self-reliance dominated the R&D operations of many leading industrial corporations for most of the 20th century.



The Open Innovation Model

In the new model of open innovation, a company commercializes both its own ideas as well as innovations from other firms and seeks ways to bring its in-house ideas to market by deploying pathways outside its current businesses. Note that the boundary between the company and its surrounding environment is porous (represented by a dashed line), enabling innovations to move more easily between the two.



Contrasting Principles of Closed and Open Innovation

Closed Innovation Principles

The smart people in our field work for us.

To profit from R&D, we must discover, develop and ship it ourselves.

If we discover it ourselves, we will get it to market first.

If we are the first to commercialize an innovation, we will win.

If we create the most and best ideas in the industry, we will win.

We should control our intellectual property (IP) so that our competitors don't profit from our ideas.

Open Innovation Principles

Not all of the smart people work for us* so we must find and tap into the knowledge and expertise of bright individuals outside our company.

External R&D can create significant value; internal R&D is needed to claim some portion of that value.

We don't have to originate the research in order to profit from it.

Building a better business model is better than getting to market first.

If we make the best use of internal *and* external ideas, we will win.

We should profit from others' use of our IP, and we should buy others' IP whenever it advances our own business model.

How prevalent is open innovation?

Many industries are currently transitioning from closed to open innovation. They have been defining new strategies for exploiting the principles of open innovation, exploring ways in which external technologies can fill gaps in their current businesses and looking at how their internal technologies can spawn the seeds of new businesses outside the current organization. In doing so, many firms have focused their activities into one of three primary areas: funding, generating or commercializing innovation.

Funding Innovation:

Venture capital helps move ideas out of corporations and universities and into the market, typically through the creation of start-ups.

Innovation benefactors provide new sources of research funding with focus on the early stages of research discovery.

Generating Innovation:

Four types of organizations that primarily generate innovation:

1. Innovation explorers (performing the discovery research function that previously took place primarily within corporate R&D laboratories. Explorers tend to innovate for innovation's sake.)
2. Merchants (their activities are focused on a narrow set of technologies that are then codified into intellectual property and aggressively sold to others. Innovation merchants will innovate but only with specific commercial goals in mind)
3. Architects (provide a service in complicated technology worlds; they develop architectures that partition this complexity, enabling numerous other companies to provide pieces of the system)
4. Missionaries (mostly community-based nonprofits & religious groups; create & advance technologies to serve a cause but do not seek financial profits from their work, want to mission e.g. Linux)

Commercialising Innovation:

Two types of organization:

1. Innovation marketers (often perform at least some of the functions of the other types of organization, but their defining attribute is their ability to profitably market ideas, their own as well as others'. Marketers focus on developing a deep understanding of current & potential needs in the market.
2. One-stop centers (provide comprehensive products and services. They take the best & deliver those offerings to their customers at competitive prices e.g. Yahoo)

Conclusion:

Companies must balance the creation of value with the need to capture a portion of that value.

A centralized approach to R&D has become obsolete which gives opportunities to small organisations in developing & marketing innovation which speeds up the process of innovation. Good networks are necessary in this new system.