Innovation management in firms

Innovation management is necessary for firms to efficiently respond to external or internal opportunities, and use their creative efforts to introduce new products, services or processes. Early models conceptualized innovation as a linear sequence of functional activities, where new opportunities arising out of R&D gave rise to new ideas which could find their way to the market (‘technology push’), or where the market signaled needs for something new which then drove efforts to solve the problem (‘technology pull’). However, it is now widely accepted that innovation is a complex and interactive process, involving constant feedback loops between the different phases. Moreover, as innovation is about more than R&D innovation management is not only about R&D, as it involves workers at every level in contributing creatively to a company's development, manufacturing, and marketing, as well as constant interaction with the market and other actors external to the firm.

The process of innovation management comprises different phases (Tidd and Bessant, 2009):

- First, firms need to be able to scan and search their internal and external environments to detect signals about potential innovation.
- Second, firms need to select from this set of potential innovation projects those which will be carried out further.
- Third, after making this choice, firms need to provide the resources to exploit the project, either through internal R&D or by acquiring the necessary technology.
- Finally, firms have to implement the innovation throughout the various stages of development to final launch, and to ensure that the organization is able to capture the returns emerging from that innovation.

Research on innovation management emphasizes the importance of creating firm specific routines (i.e. repeated, reinforced patterns of behavior) which define a firm’s particular approach to the problem or “way of doing things” (Tidd, 2001). Such routines depend on the internal structure of the firm (i.e. the definition of business divisions, functional links, networks, project management, etc.) and also on the links with other organizations (including suppliers, customers, competitors, business associations, universities, governments, etc.).

A wide variety of methodologies and tools for innovation management exist (Hidalgo and Albors, 2007). There is no “best practice” innovation management model that can be used across the board by all firms. The most appropriate innovation management approach will depend on the firm’s size, sector of activity, and culture, as well as the type of innovation that the firm wants to focus on.

The nature of challenges will depend on the type of innovation involved, as innovation is a broad concept that can take many forms, ranging from product to process innovation, as well as innovation in marketing and organization. Innovation can also be classified attending to the novelty of the knowledge involved, and this in turn influences the scope of innovation management (Tidd and Bessant, 2009). Innovation management for disruptive innovation focuses on developing the capacity for re-writing the rules of the competitive game, creating a new “value proposition”. In the case of radical innovation, the focus is on offering a highly novel or unique product or service, with premium pricing. In the case of incremental innovation, innovation management focuses on minor product developments and process improvements, aimed at doing the same kind of things but more efficiently. In other words the objectives of innovation management and the most appropriate management tools differ under each of these scenarios.

Since the 1980s a major development in innovation management has been the greater reliance of firms on external sources of knowledge, be it through technology contracts, through embodied technology, or through collaboration in R&D. Thus, business innovation has moved away from internal R&D labs towards innovation networks, often global in scope. Firms are increasingly adopting 'open innovation' strategies (see 197.Open innovation) to better access and integrate external sources of knowledge, involving a closer collaboration with external parties (Chesbrough, 2003). This process involves significant changes in the capabilities and routines that firms need to develop for successful innovation management.

References

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