

Innovation Management

Dr. R.Saranya Devi

Assistant professor, Dept of commerce with computer application, Rajapalayam Rajus' College, Rajapalayam (India)

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Corresponding Author

Email: subhisaran2007[at]gmail.com

ABSTRACT

Innovation is both a necessary means and a desirable end for businesses in a fast moving global economy. It is about managing a process that delivers either new products and services to the customers, efficiently, effectively and faster than the competition, or about enhancing the delivery of existing products and services by process improvement. Generally innovation involves managing a complex mix of procedures in a context that often conditions the way the end result will be achieved. Innovation management is a combination of the management of innovation processes, and change management. Innovation management is the active organisation, control and execution of processes, activities, and policies that lead to the of substantial new value for customers and the firm by creatively changing one or more dimensions of the business system.

1. Introduction

Innovation management (IM) is based on some of the ideas put forth by the Austrian economist Joseph Schumpeter, working during the 1930s, who identified innovation as a significant factor in economic growth. His book "*Capitalism, Socialism and Democracy*" first fully developed the concept of creative destruction.

Innovation management helps an organization grasp an opportunity and use it to create and introduce new ideas, processes, or products industriously. Creativity is the basis of innovation management; the end goal is a change in services or business process. Innovative ideas are the result of two consecutive steps, *imitation* and *invention*.

By utilizing innovation management tools, management can trigger and deploy the creative capabilities of the work force for the continuous development of a company. Common tools include brainstorming, prototyping, product lifecycle management, ideation, TRIZ, Phase-gate model, project management, product line planning and portfolio management. The process can be viewed as an evolutionary integration of organization, technology, and market, by iterating series of activities: search, select, implement and capture

Innovation processes can either be *pushed* or *pulled* through development. A *pushed* process is based on existing or newly invented technology that the organization has access to. The goal is to find profitable applications for the already-existing technology. A *pulled* process, by contrast, is based on finding areas where customers' needs are not met and finding solutions to those needs. To succeed with either method, an understanding of both the market and the technical problems are needed. By creating multi-functional development teams, containing both engineers and marketers, both dimensions can be solved.

Innovation, although not sufficient, is a necessary prerequisite for the continued survival and development of enterprises. The most direct way of business innovation is

through technological innovation, disruptive innovation or social innovation. Management of innovation, however, plays a significant role in promoting technological and institutional innovation.

The goal of innovation management within a company is to cultivate a suitable environment to encourage innovation. The suitable environment would help the firms get more cooperation projects, even 'the take-off platform for business ventures. Senior management's support is crucial to successful innovation; clear direction, endorsement, and support are essential to innovation pursuits.

2. Managing complex innovation

Innovation is often a technological change that outperforms a previous practice. To lead or sustain with innovations, managers need to concentrate heavily on the innovation network, which requires deep understanding of the complexity of innovation. Collaboration is an important source of innovation. Innovations are increasingly brought to the market by networks of firms, selected according to their comparative advantages, and operating in a coordinated manner.

When a technology goes through a major transformation phase and yields a successful innovation, it becomes a great learning experience, not only for the parent industry but other industries as well. Big innovations are generally the outcome of intra- and interdisciplinary networking among technological sectors, along with combination of implicit and explicit knowledge. Networking is required, but network integration is the key to success for complex innovation. Social economic zones, technology corridors, free trade agreements, and technology clusters are some of the ways to encourage organizational networking and cross-functional innovations.

3. Innovation management

Innovation management is the process of managing innovations, that is, ideas, in organisations through the stages of the innovation cycle.

The innovation cycle describes the activities involved in taking an innovative product or service to the marketplace. In essence, there are two aspects to this:

1. Developing the innovative product or service.
2. Building the business to market the product or service.

Stage	Description	Typical activities
1	Ideas	Identify a market opportunity
2	Resources	Organise people, finance and facilities to match the goals of the organisation
3	Investigate	Research the possibilities
4	Patent	Protect the intellectual property
5	Design	Model and test it for users
6	Develop	Improve the technology
7	Make	Start production
8	Sell	Advertise and inform people
9	Service	Communicate with the customers

The first stage in the innovation cycle is ideas generation. Ideas will often arise from observation of a current or future problem. They could be inspired by the organisation's objectives or by a new market situation that suddenly becomes an opportunity.

Once the opportunity has been recognised, it needs to be evaluated. An important test for an idea is that it matches the goals of the organisation and available resources – people, finance and facilities.

If there is alignment with the objectives of the organisation, the idea moves to a new stage where it can be investigated and further developed. The development phase may involve further research into the opportunity or the patenting of the concept. Prototypes may well be designed, developed and tested at this stage.

The decision to start selling the innovation is a critical stage. This is when significant resources are often required to support the launch. Sometimes an organisation might wait at the end of the development phase for suitable market conditions.

The final stage of the innovation cycle is commercialisation, where the innovation is marketed and sold to the customer. The innovation now moves out of the organisation's control and into the hands of the users. This is the hardest stage of the innovation cycle for organisations to 'manage'. It is crucial that the organisation monitors the innovation's performance so that any shortcomings are corrected.

Innovative organisations will typically be working on new innovations that will eventually replace older ones. This is important as product life cycles show reduced growth for older products and services. Growth may even begin to decline

eventually, therefore impacting an organisation's ability to expand.

New incremental innovations or changes to the product allow growth to continue. Companies typically generate far more technical innovations than they can possibly hope to bring to market effectively. There is a need for structured management and processes to handle innovation from the ideas stage to commercialisation.

4. Innovation management tool

Antonio Hidalgo and Jose Albor proposed the use of typologies as an innovation management tool. The study conducted at a European level used 10 typologies for knowledge-driven Innovation Management Tools. These typologies were found by looking at 32 characteristics that classify Innovation Management Tools. Hidalgo and Albor were able to narrow the list down to 8 criteria (knowledge-driven focus, strategic impact, degree of availability, level of documentation, practical usefulness, age of the IMT, required resources for implementation, measurability), that are especially relevant for IMTs in the knowledge-driven economy (knowledge economy). The advantage of using typologies is the easy integration of new methods and the availability of a broader scope of tools.

1) Innovation management methods

Broadly speaking, innovation can be incremental, breakthrough or disruptive.

- **Incremental:** In an era where businesses are required to constantly reinvent themselves, incremental innovation helps them thrive by constantly improving current products, services, processes or methods.
- **Breakthrough:** A breakthrough innovation refers to technological advancements that can boost the level of a product or service, within an existing category, ahead of its competitors.
- **Disruptive:** Disruptive innovations are ideas that are capable of radically changing the market behavior after being implemented.

2) Achieving innovation management success

For innovation management process to be successful, it is essential that the company support an innovation culture and make employees feel valued. This will encourage employees to generate quality ideas in return.

Organizations today are leveraging collaborative technology like social networking to get feedback, which helps in generating a steady stream of ideas from stakeholders both within and outside the company.

To make innovation management a routine part of business, many organizations follow a disciplined and cyclic approach. Ideation is the first step to innovation and incentives and feedbacks help encourage a steady flow of ideas. The next step in a well-managed innovation process is to identify the most valuable and viable ideas. Companies can then move forward to create prototype products based on the shortlisted ideas and implement them to see how they work. In the final

step of full implementation, it is important to evaluate the outcome to see whether the desired business goals were met once the ideas were implemented.

It is also necessary to engage the C-suite in discussion about innovation management to make sure that the ideas generated are in line with business goals. Organizations are also increasingly looking for innovation managers, who are equipped with specific skills, to drive innovation and oversee the innovation management process.

The four basic types of innovation mentioned nowadays are summarized :

The wide use of this interpretation of the concept is shown by the following definitions as well, where in addition to the original (primary) innovations, adaptive (secondary, tertiary) innovations are also considered.

At the same time the relativity of the concept of innovation is declared and a framework of a multi-stage concept (continent, country, branch, corporation, etc.) of innovation is drawn up.

Innovations may appear in different ways in space and time resulting in different novelties:

- for the market: the first Xerox photocopier,
- for the manufacturer: photocopiers by Lumiprint,
- for the distributor: a company which is the first distributor of 3M photocopiers,
- for the customer: the office receives a new photocopier.

Application

Innovation is relevant in any organisation and can be applied in a number of different ways.

Product/service innovation – introducing new goods or services that are new or substantially improved. This could include improvements in functional use, convenience or technical capabilities.

Process innovation – implementing new or significantly improved production or delivery methods.

Business model innovation – changing the way business is done, for example, EasyJet, Dell computers and global outsourcing.

Organisational innovation – creating or changing business structures, practices and models.

Marketing innovation – developing alternative marketing techniques to deliver improvements in price, position, packaging, product design or promotion.

Supply chain innovation – improving the way that materials are sourced from suppliers or improving methods of product delivery to customers.

Financial innovation – bringing together basic financial concepts. This might include credit, risk-sharing, ownership or liquidity to produce new financial services, products or ways of managing business operations. For example, financial innovation adapts to new circumstances and develops new value chains as the compliance and legislative environment evolves.

The common link between each of these is an improvement in efficiency, productivity, quality and/or competitive positioning for the organisation.

While innovation typically adds value to an organisation, it is not without risk. Key innovation risks include:

Operational

Operational risks include failure to meet specification, costs or launch date. Damage to company reputation and brand is another potential operational risk.

Commercial

Consumer resistance and competition are examples of commercial risk.

Financial

Investment yield may be less than planned. There is also a risk that debt/equity investors become dissatisfied.

5. Conclusion

The 'innovation management' is a framework for managing innovation: it provides structure and discipline, and facilitates the innovation process it can allow faster development of innovations that drive growth it defines and tracks innovations according to predetermined criteria it provides 'gates' to control innovation resource decisions. This allows the passage of projects more likely to succeed by killing those more likely to fail as early as possible

Reference

1. Adams, R., Bessant, J. and Phelps, R. Innovation management measures: a review. *International Journal of Management Reviews*, March 2006, Volume 8, Issue 1, pp 21-47
2. Krishnan, V. and Loch, C. Introduction to the special issue: management of product innovation. *Production and Operations Management*, Fall 2005, Volume 14, Issue 3, pp 269-271 Innovation management Topic Gateway Series 11
3. Liao, Y. The effects of knowledge management strategy and organizational structure on innovation. *International Journal of Management*, March 2007, Volume 24, Issue 1, pp 53-60
4. Salomo, S., Weise, J. and Gemünden, H. NPD planning activities and innovation performance: the mediating role of process management and the moderating effect of product innovativeness. *Journal of Product Innovation Management*, July 2007, Volume 24, Issue 4, pp 285-302

5. Chakravorti, B. (2003). *The slow pace of fast change: bringing innovations to market in a connected world*. Boston, MA: Harvard Business School Press
6. Christensen, Clayton M. (1997). *The innovator's dilemma*. Boston, MA: Harvard Business School Press
7. Christensen, C. and Raynor, M. (2003). *The innovator's solution: creating and sustaining successful growth*. Boston, MA: Harvard Business School Press
8. Stein, M. (1974). *Stimulating creativity*. New York: Academic Press
von Hippel, E. (2005). *Democratizing innovation*. MIT Press