

## **Role of Technological Innovation on Management Activities**

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### **ABSTRACT**

*Managing Technological Innovation provides a set of apparatuses and case studies for Research and development managers to effectively manage technological innovations — from the identifying of technological needs to the dispatch of the item. This street numbers the policies and strategies necessary to provide direction to Research and development associations in the management of technological innovation. It focuses on technological assessment; presenting the methods available to better coordinating of technologies to strategic directions, supported with case studies to illustrate the evaluation methods.*

**KEYWORDS:** *Technological, Innovation, Management*

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### **I. INTRODUCTION**

It covers the development and working of technological portfolios with new items, just as alleviation strategies. It focuses on the execution phase of assembled portfolios — the development of new items. Lastly, It gathers together with an investigation on the elements which sway the dissemination of technological innovations into the market place.

All together for a firm to develop a successful management of technology and innovation strategy, it is imperative that the association be readied for the effort. This requires deftness because changes and adjustments to items and processes are filled with hazard and uncertainty. However, dexterity is inherently less efficiency in the event that it is to be effective. Therefore, the management of technology and innovation should balance momentary efficiency with long haul effectiveness in the market if the firm is to add value and thrive in an evolving environment. Solid unique capabilities are needed if the association will be able to address the challenges of innovation and dynamic competition.

There are four things the firm ought to do to balance the clashing demands of being agile in a unique environment. These are:

1. Design systems and processes that can identify, assess, and develop technology based opportunities (or protect from new technology threats). The systems and processes ought to be able to sense what is coming.
2. Identify communication needs and efficiently transform data into information so the correct information can be available to make the best decision in a timely design. The current interest in enormous data and what it can tell firms is tied to the idea that we have a ton of bytes of data available because of computer technology that are not being used effectively or efficiently.
3. Develop employees through preparing and learning opportunities. This becomes more basic as the competitive environment for the association becomes more unique. The management of technology and innovation requires that all levels of the association are involved and that efforts are made to ensure that employees are allowed to enhance their abilities for themselves and the association. The more unique the environment, the more significant ability enhancement is for the firm and the person.
4. Use great change management processes to help the firm succeed in bringing newness into the association. Numerous organizations learned expensive lessons when desktop computers were introduced into the workplace. To start with, most managers didn't type, so they didn't embrace the new technology. Second, younger staff members were more likely to be comfortable with the new computers (even elated because the computer was better than they could bear at home), so knowledge power was turned upside down from the hierarchy and seniority. Third, numerous organizations installed desktops with little or no preparation (because they were "upgraded typewriters") while leaving the typewriters easily accessible. The result was that some companies deemed desktops a failure and sold the equipment at a misfortune. Clearly, desktop computers are currently an essential device in the workplace, yet this simply illustrates what happens when a decent change management process that includes proper emotionally supportive networks, communication, and preparing isn't implemented.

## **II. ROLE OF TECHNOLOGICAL INNOVATION ON MANAGEMENT ACTIVITIES**

Management of technology and innovation is basic to the association. Because of innovations and new technologies, we have truly seen the emergence of innovative hierarchical structures and better approaches for performing work. For example, the Industrial Revolution ushered in the utilitarian structure for associations. As business moved from small art businesses like smithies to railroads, there was a need to introduce a more complex business structure. Today, we see the innovations in information technology changing structures to more network based with people being able to work remotely. The changes in structure are innovations in the technology of how work is accomplished; the innovations welcomed on by the invention of new items influence the technology we use and how we use it.

Technology can be defined in a number of ways. The fundamental purpose of a system (like an association) is to convert contributions to yields. Therefore, we will define authoritative technology as the processes inside the association that help to convert contributions to yields just as the supporting evaluation and control mechanisms. The management of technology involves the arranging, implementation, evaluation, and control of the association's resources and capabilities to create value and competitive advantage.

There are predominantly four concepts of management and innovation:

1. Technology strategy—the rationale of how technology will be used and which role technology will have in the association. For example, will innovation (first-to-market strategies dominate) be the center, or will the firm need to improve to acquire market share and value.
2. Technology forecasting—the use of instruments to read the environment for potential technological changes that can both positively and negatively affect the association's value recommendation. Digitization of a variety of items, for example, watches and cameras provided great opportunities for some organizations and caused others to fail. Forecasting (or possibly keeping an eye on the changes in technology) is very significant in management of technology.
3. Technology road-mapping—the process of taking an innovation or technology and attempting to construct more value by searching for approaches to use the technology in different markets and places.
4. Technology project portfolio—the use of portfolio techniques in development and use of technology enhances the potential value of technologies being developed and the technologies that are currently important for a company's portfolio.

Successful entrepreneurs develop strategies that enable them to solve business problems in a creative manner. Via preparing their teams to use creative problem-tackling processes, like the Simplex Process, these pioneers view problems as opportunities. They identify the problem by interviewing customers or evaluating current items. Then, the team analyzes existing data and behaviors market research to understand previous attempts to solve the problem. They define the problem at the correct level. Next, they generate ideas through conceptualizing and conversation. At last, they select viable alternatives to pursue, design and develop.

An effective strategy for managing innovation and technology generally involves utilizing comprehensive investigation devices. These apparatuses ensure the team can manage hazard to minimize negative effect and exploit opportunities. They additionally use decision-support devices, such effect examination and force field investigation, to examine possible outcomes and choose the best answer for a problem.

By ascertaining the net present value and internal rate of return, the project manager ensures that the effort makes sense from a monetary perspective. Net present value represents the difference between money intake and surge.

The internal rate of return determines the rate of development for a project. Accurately determining whether the return from an investment may be worth less than investment itself prevents business blunders.

The trading hub capacities as a means of integrating the electronic joint effort of business services. Each hub provides standard organizations for the electronic trading of documents used in a specific industry, just as a variety of services to support e-commerce between businesses in that industry. Services include demand forecasting, inventory management, partner directories, and exchange settlement services.

## **III. DISCUSSION**

The result is critical—lowered expenses, decreased inventory levels, and shorter time to market—resulting in bigger benefits and enhanced competitiveness. For example, large-scale fabricating procurement can add up to billions of dollars. Evolving to "in the nick of time buying" on the e-hub can save a considerable percentage of these expenses.

Electronic trading across a hub can range from the collaborative integration of individual business processes to closeouts and exchanges of products (electronic barter).

Global content management is an essential factor in advancing electronic trading agreements on the hub. A globally consistent view of the "content" of the hub should be available to all. Each partaking

organization handles its own content, and applications, for example, content managers keep a persistently updated master index of the inventories of all members of the hub.

The exchange manager application automates trading arrangements between companies, permitting the hub to provide aggregation and settlement services.

Trading hubs for numerous industries could be linked together in a global e-commerce web—an inclusive "hub, all things considered" One creative thinker puts it thusly: "The customary linear, one step at a time, production network is dead. It will be replaced by parallel, non-concurrent, real-time marketplace decision-production. Take producing limit as an example.

The more quickly innovation happens, the more quickly technology happens inside firms, inside industries, and inside economies. These changes require that cooperatives be developed. These cooperatives can take a variety of structures, both internal and external to the firm.

There is significantly more internationalization of items and markets. Sometimes, the innovations spread in manners that were not predicted. For example, GE wanted to develop a portable X-ray machine to be used in less-developed countries. The machine would be portable and would use a PC interface to send images for diagnoses. It was successfully developed and a plant was fabricated overseas, and afterward GE discovered there were markets in more-developed economies that they had not considered. For example, large-animal veterinarians wanted to use the machines on homesteads and ranches. Tracking down the best markets and the best creation alternatives has become a significant piece of MTI.

Environmental concerns can be significant all through the whole life cycle of an item. From development to assembling to usage to removal, are generally concerns for MTI. For example, energy creation is a cause of great concern. The use of non-renewable energy sources like coal, oil, and petroleum gas have impacted carbon levels in the atmosphere. Nuclear power does not have that sway, yet accidents at such facilities can be cataclysmic.

As economies become more knowledge and information based, service industries will continue to develop. The services provided by Internet suppliers, specialists in network security, etc. will influence how business will develop for the foreseeable future—especially in developing economies. The emergence of a more knowledge-and information-based global economy means that services will become more basic and service industries will continue to develop at a faster pace than item based industries.

#### **IV. CONCLUSION**

Management of technology and innovation is critical to the organization. Because of innovations and new technologies, we have historically seen the emergence of innovative organizational structures and new ways of performing work. The management of technology involves the planning, implementation, evaluation, and control of the organization's resources and capabilities in order to create value and competitive advantage. Management of innovation includes both change management and managing organizational processes that encourage innovation.

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