MODULE 1- INNOVATION

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Learning objective

After reading this module, the reader will be familiar with
(1) The concept of innovation.
(2) The concept of BPR.

Introduction

In considering more closely the concepts of change and innovation, it is useful to distinguish between these two terms. Change refers to any alteration of the status quo, whereas innovation is a more specialised kind of change. Innovation is a new idea applied to initiating or improving a process, product or service. All innovations imply change, but not all changes are innovations since changes may not involve new ideas or lead to significant improvements.

1.1 Meaning of Innovation

Innovation in its modern meaning is a "new idea, creative thoughts and new imaginations in form of device or method".Innovation is often also viewed as the application of bettersolutions that meet new requirements, unarticulated needs, or existing market needs. Such innovation takes place through the provision of more-effective products, processes, services, technologies, or business models that are made available to markets, governments and society. An innovation is something original and more effective and, as a consequence, new, that "breaks into" the market or society. Innovation is related to, but not the same as, invention, as innovation is more apt to involve the practical implementation of an invention (i.e. new/improved ability) to make a meaningful impact in the market or society, and not all innovations require an invention. Innovation oftenmanifests itself via the engineering process, when the problem being solved is of a technical or scientific nature. The opposite of innovation is exnovation.

While a novel device is often described as an innovation, in economics, management science, and other fields of practice and analysis, innovation is generally considered to be the result of a process that brings together various novel ideas in such a way that they affect society. In industrial economics, innovations are created and found[empirically from services to meet growing consumer demand.
Innovation also has an older historical meaning which is quite different. From the 1400s through the 1600s, prior to early American settlement, the concept of "innovation" was pejorative. It was an early modern synonym for rebellion, revolt and heresy

1.2 Definition

A 2014 survey of literature on innovation found over 40 definitions. In an industrial survey of how the software industry defined innovation, the following definition given by Crossan and Apaydin was considered to be the most complete, which builds on the Organisation for Economic Co-operation and Development (OECD) manual's definition:
Innovation is production or adoption, assimilation, and exploitation of a value-added novelty in economic and social spheres; renewal and enlargement of products, services, and markets; development of new methods of production; and the establishment of new management systems. It is both a process and an outcome.
According to Kanter innovation includes original invention and creative use and defines innovation as a generation, admission and realization of new ideas, products, services and processes.

Two main dimensions of innovation were degree of novelty (patent) (i.e. whether an innovation is new to the firm, new to the market, new to the industry, or new to the world) and kind of innovation (i.e. whether it is processor product-service system innovation). In recent organizational scholarship, researchers of workplaces have also distinguished innovation to be separate from creativity, by providing an updated definition of these two related but distinct constructs:

Workplace creativity concerns the cognitive and behavioral processes applied when attempting to generate novel ideas. Workplace innovation concerns the processes applied when attempting to implement new ideas. Specifically, innovation involves some combination of problem/opportunity identification, the introduction, adoption or modification of new ideas germane to organizational needs, the promotion of these ideas, and the practical implementation of these ideas.

1.3 BENEFITS OF INNOVATION

Improved productivity & reduced costs

A lot of process innovation is about reducing unit costs. This might be achieved by improving the production capacity and/or flexibility of the business – to enable it to exploit economies of scale

Better quality

By definition, better quality products and services are more likely to meet customer needs. Assuming that they are effectively marketed, that should result in higher sales and profits

Building a product range

A business with a single product or limited product range would almost certainly benefit from innovation. A broader product range provides an opportunity for higher sales and profits and also reduces the risk for shareholders

To handle legal and environmental issues

Innovation might enable the business to reduce it carbon emissions, produce less waste or perhaps comply with changing product legislation. Changes in laws often force business to innovate when they might not otherwise do so

More added value

Effective innovation is a great way to establish a unique selling proposition ("USP") for a product – something which the customer is prepared to pay more for and which helps a business differentiate itself from competitors

Improved staff retention, motivation and easier recruitment

Not an obvious benefit, but often significant. Potential good quality recruits are often drawn to a business with a reputation for innovation. Innovative businesses have a reputation for being inspiring places in which to work.

1.4 RISKS OF INNOVATION

A strategy of investing in R&D and innovation can bring significant rewards, but it is not without risk. Amongst the potential pitfalls are:

Competition

An innovation only confers a competitive advantage if competitors are not able to replicate it in their own businesses. Whilst patents provide some legal protection, the reality is that many innovative products and processes are hard to protect. One danger is that one research-driven, innovative company makes the initial investment and takes all the risk – only to find it is competing with many me-too competitors riding on the coat-tails of the innovation.

Uncertain commercial returns

Much research is speculative and there is no guarantee of future revenues and profits. The longer the development timescale the greater the risk that research is overtaken by competitors too.

Availability of finance

Like other business activities, R&D has to compete for scarce cash. Given the risks involved, R&D demands a high required rate of return. That means that for businesses that have limited cash resources, the opportunity cost of investing in R&D can be very high.

1.5 Importance of Innovation in Marketing

Innovation is an important entrepreneurial function for business. It is not enough for the business to provide just any economic goods and services; it must provide better

and more economic ones. It is not necessary for a business to grow bigger, but it is necessary that it constantly grows better.
At the adverse circumstances of a business, or at the severest recession period or at the bottom of a depression, a businessman may be convinced that this time there will be no recovery. A good management is the specific organ for change, expansion and growth.

An entrepreneur will use his innovative quality and effect a favorable change management process. Innovation goes right through all phases of business. It may be innovation in design, in product, in marketing techniques. Thus, innovation extends through all forms of business. Innovation in distribution is as important as innovation in manufacturing or innovation in product design or innovation in banking system.
The management, especially the human resource department should identify the employees with a considerable amount of zeal for career building. Such people would see organizational commitment more positively, thereby helping the management to strengthen the career mapping of its employees.
Commitment seems to nurture in innovation in the individual due to the emotional and cognitive component of the construct. Committed people are considered to be more energetic, problem- solving oriented and enjoy the job more than those who are less committed.

Therefore, at the adverse situation of a business, productivity, performance and efficient utilization of human resources hold interesting implication about the value of organization involvement. For success in business, innovation is crucial and should be the primary activity. Innovation creating new ideas, explaining new possibilities and exploitation of proven knowledge.
To foster creativity, it is important that people do what they think is right, rather than what they are told or what they anticipate their seniors desire. A progressive management should encourage the creation of a favorable environment conducive to innovation function.

The best example is the existence of the Jack Welch Technology Centre at Bangalore managed and funded by General Electric of USA for conducting cutting edge research activities by qualified and trained Engineers and Scientists.

1.6 Need for Innovation and Creativity for an Organization

Innovation is a new technique or idea encompassing product/services, processes, managerial styles, and even organizational structures. It may be technology push or demand-pull or even a combination of both. Research and development (R&D) activities of an organization are examples of such innovation. In any organization, the need for innovation is primarily felt to keep pace with the competition.
It has to be essentially customer focused as this backward linkage facilitates process-centred innovative changes. Whether it is just-in-time (JIT) inventory control, supply chain management (SCM), business process outsourcing (BPO), flexible manufacturing systems (FMS), product/service customization, strategic backward or forward integration, synergy through merger or acquisition, alliances or collaboration, organizational re-engineering through TCM or Six Sigma practices, new work culture

as facilitator of organizational change, or any R&D initiative for value addition, which broadly encompasses innovation, it all stems from the customers' explicit or implicit needs. Mapping customers' needs and aligning the innovation initiative to customers' needs, is what we need in this competitive world. Innovation is enabled by proactive organizational behaviour practices.

It calls for creating a work environment that recognizes creativity, inter-organizational co-operation (rather than competition and working as cross-functional teams), productive meetings for innovative results, introduction of formal innovation programmes, and finally the organization's receptivity to new ideas and perspectives.

Fostering innovation requires a structured approach. It has to be broadly in the given context, leadership, values, and culture. Contextual analysis helps in building the required innovation teams. Leaders facilitate the teams. Values enable adoption of principles, which foster innovation, and finally the culture provides the playing field.

At this stage, it is pertinent to define creativity because innovation and creativity are often used interchangeably in the work place. The Webster Dictionary has defined creativity as 'the ability or power to create, to bring into existence, to invest with a new form, to produce through imaginative skill, to make or bring into existence something new. Creativity is, therefore, the core competency.

It is the talent of the employees of an organization. Competitors can replicate the strategies of an organization but not the creative talents of its employees. To encourage creativity, an organization first creates the right environment where employees feel safe even to come up with 'dumb' or 'crazy' ideas.

Creativity is often punished in organizations, as creative people spend more time in getting ready for action. They are also more difficult to manage. Organizations, therefore, often see them as major time and money wasters, and inhibit their creative thoughts.

A review of creativity literature helps us to capture creative patterns in the following ways:

A creative process is a balance of imagination and analysis. It involves idea generation, analysis and evaluation.

Creativity does not stem from subconscious process, as traditionally believed by the classical school of thoughts. It is a purposeful or directed attempt to generate new ideas under a controlled situation to help an organization to leapfrog in competition. Paul E. Plsek (1997) used the term more appropriately as 'Directed Creativity'. It is a purposeful generation of creative ideas with seriousness of its implementation, whenever it matches with organizational requirements. Non-implementation of at least some ideas (that fit the purpose) will inhibit creativity.

Innovation is the implementation of creative ideas. Therefore, creativity is the sub-set of innovation. Innovation being a holistic concept, here we prefer to use the term interchangeably. Competencies, on the other hand, are sets of behaviours, which encompass skills, knowledge, abilities, and attributes.

Competencies are measurable and they change over time. Hamel and Prahalad (1990) attributed business success only on innovative creativity, knowledge resources, and

the expertise, which together create the critical potential of an organization, that is, the core competencies.
Other proponents of core competencies such as Quinn (1992), Drucker (1992), Porter (1995), Waterman (1983), Peter (1988), Nonaka and Takeuchi (1955), and Senge (1990), also showed that developing the core competencies helps an organization to build its strategic power. The core competencies are difficult to duplicate by the competitors because of their distinctiveness. Core competencies are, therefore, critical success factors for any organization.
Although there exists, widespread differences regarding constituents of core competencies and its relation with knowledge, skill, abilities, and attributes of employees, there is agreement among the proponents about how these are created by linking the organization's goals, structures, and cultures.
Innovation and creativity help to develop the core competencies, supplementing knowledge and skill base for the employees. In this respect, directed creativity, that is, purposeful generation of new ideas matching the organizational requirements is more relevant.

Innovation, creativity, and competencies are important facilitators for organizational change. Imperatives for organizational change basically stem from redefining the business focus, restructuring, and customer orientation— all for competitive advantages.

1.7 What is Business Process Reengineering (BPR)?

Business Process Reengineering (BPR) aims at cutting down enterprise costs and process redundancies, but unlike other process management techniques, it does so on a much broader scale. Business Process Reengineering (BPR) - also known as process innovation and core process redesign - attempts to restructure or obliterate unproductive management layers, wipe out redundancies, and remodel processes differently.

So Business Process Reengineering (BPR) is Essentially BPI, Right?

On the surface, BPR sounds an awful like business process improvement (BPI). However, there are fundamental differences that distinguish the two. BPI might be about downsizing the current team size or tweaking a few rules here and there. But reengineering is an unconstrained approach to look beyond the defined boundaries and bring in seismic changes.
BPI is like upgrading the exhaust system on your project car. Business Process Reengineering, BPR is about rethinking the entire way the exhaust is handled.

Business Process Reengineering (BPR) – Definition, Steps, and Examples

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Remodel your Business Process with Best BPM Software

While BPI is an incremental setup that focuses on tinkering with the existing processes to improve them, BPR looks at the broader picture. BPI doesn't go against the grain; it identifies the process bottlenecks and recommends changes in specific functionalities. The process framework principally remains the same when BPI is into play. BPR, on the other hand, rejects the existing rules and often takes an unconventional route to redo processes from a high-level management perspective.
Another good analogy can be seen in trying to live a healthy lifestyle. BPI might involve finding a way to get to the gym more often and eat less sugar. But BPR is an entire lifestyle change that starts with how you buy food, how you incorporate movement and exercise into your day, and how to reduce stress.

1.8 Types of innovation strategies

Innovation strategies can be classed as proactive, active, reactive and passive (Dodgson et al. 2008).

Proactive

Companies with proactive innovation strategies tend to have strong research orientation and first-mover advantage, and be a technology market leader. They access knowledge from a broad range of sources and take big bets/high risks. Examples include: Dupont, Apple and Singapore Airlines.
The types of technological innovation used in a proactive innovation strategy are:

radical - breakthroughs that change the nature of products and services

incremental - the constant technological or process changes that lead to improved performance of products and services.

Active

Active innovation strategies involve defending existing technologies and markets while being prepared to respond quickly once markets and technologies are proven. Companies using this approach also have broad sources of knowledge and medium-to-low risk exposure; they tend to hedge their bets. Examples include Microsoft, Dell and British Airways.
These companies use mainly incremental innovation with in-house applied research and development.

Reactive

The reactive innovation strategy is used by companies:

which are followers
have a focus on operations
take a wait-and-see approach
look for low-risk opportunities.

They copy proven innovation and use entirely incremental innovators. An example is Ryanair, a budget airline which has successfully copied the no-frills service model of Southwest Airlines.

Passive
Companies with passive innovation strategies wait until their customers demand a change in their products or services. Examples include automotive supply companies as they wait for their customers to demand changes to specification before implementing these.

1.9 Case studies

(1) Flipkart Drives Innovation Through Intelligent use of IT

By using a system that allows Flipkart's engineers to launch multiple versions of its website in real time, IT drives a new level of innovation. Summary:

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Highlights:

Malviya knew he would have to empower users with new tools to innovate and stay ahead of the pack.
Flipkart uses an A/B framework (used to test the success of web marketing campaigns), allows multiple versions of the site to be live simultaneously.
The Organization: Despite a slow start, e-commerce in India has grown by 70 percent year-on-year, according to the Internet and Mobile Association of India. Leading the pack of e-retailers is Flipkart. The brain child of ex-Amazon employees Flipkart has today become one of the most trusted avenues for e-commerce in India.

The Business case: In 2010, thanks to the new-found confidence of the Indian online shopper, Flipkart's numbers peaked.

But for Amod Malviya, VP engineering, Flipkart, that came with a caveat. "We had to be careful to not let our rapid growth kill the innovative spirit of the company," he says. That's a valid fear. In the business of innovation, complacency holds no ground.

We started streaming metrics on large screens on the engineering floor so that engineers could track performance in real time—unlike most websites that review their performance only once in a week.

Malviya knew he would have to empower users with new tools to innovate and stay ahead of the pack. But creating a new process wasn't the solution. "Processes force people to do things in a certain way, killing their creativity. If you remove the bureaucratic headache, people are encouraged to think freely," says Malviya.

While he admits that this approach opens new doors to risk, he knows that it also encourages a fearless culture of innovation—a must-have in the e-commerce business.

The Project: With that goal in mind, Malviya implemented a framework. The framework has two components: One measures the performance of the website through various defined metrics. The second, more interesting one, uses an A/B framework (used to test the success of web marketing campaigns), allows multiple versions of the site to be live simultaneously. This helps the company conduct live experiments by siphoning off a small portion of the traffic and studying the results.

Both components work in tandem. The metrics tool is a dashboard that measures the website's performance on various parameters. For example, if the transaction rate falls below a certain limit, systems are immediately alerted.

With the A/B component, Flipkart's engineers can also rapidly implement their ideas. "When someone proposes a new idea, a lot of precious time is spent debating what-if scenarios. Now, we can implement an idea, while mitigating its risks."

For example, whenever an engineer wants to change the design of the homepage, the A/B framework redirects 10 percent of Flipkart's traffic to the new design. They can evaluate the impact of the change with the metrics collection tool. If it leads to a dip in sales, they can immediately roll it back, and less than 10 percent of traffic is impacted.

"We started streaming metrics on large screens on the engineering floor so that engineers could track performance in real time—unlike most websites that review their performance only once in a week or a month," says Malviya.

This has been a huge hit with business users who can now float new products and toy with business ideas.

The Benefits: Since the introduction of the tool in mid-2010, the company today sells more than 20 categories of products, clocking in sales of Rs 75 crore a month. In fact, in the last eight quarters, the company has doubled its revenue every quarter.

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Why InMobi may be India's most innovative company?

Inmobi (Freitas & Pradeep, 2015) is today the world's largest and most powerful independent mobile advertising platform. In four months—between April and July, 2012—the company's employee base surged from 200 to 900. It has the honor of being the most innovative company in the India by Fast Companies List, 2016. More recently, Inmobi, a start-up in India, found that there were errors in their system while scaling up the operations and headcount. They realized in 2012, that they had made a big mistake around managing their people, as per Teewari, CEO. They quickly went ahead with corrective actions and for the past few years, they have been experimenting with unique, refreshing, and counter-intuitive ideas for the recruitment, retention, engagement, and rewarding its employees. Taking a cue from John Sullivian's statement: "if you focus on measure and reward performance, you won't have attendance issues," employees at Inmobi are not required to seek permission from their bosses if they are going on leave for less than six days (Goyal, 2015). There are no international travel policies and employees are free to spend it as they please. At Inmobi, if an employee quits within a month, they are given three months' salary as a quitting bonus. Employees are offered $800 annually as a learning wallet, which they can use for learning anything including scuba diving, cooking classes, or any new technology (Goyal, 2015).

1.10 Summary

As long as an idea for bringing about an improvement is perceived as new by the individuals involved, it is generally considered as an innovation. But organisations must be careful in adapting ideas so as to ensure that they are not engaged in illegal copying, violating the copy right laws or infringing patents held by others.

1.11 Self-Assessment Questions

1. Explain Business process re-engineering?
2. What are the types of innovation strategies?