Subject Notes
Open Elective CS803 (D) Managing Innovation and Entrepreneurship
Unit-V

Course contents:
Measurement and evaluation of the benefits of innovation for business (financial and non-financial metrics, their combination and choice), Barriers to innovation in business, innovation failure and its causes, post-audits of innovative projects, Organization and facilitation of an innovation workshop

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Course Objectives: To learn innovation matrix and effects of the innovation management process.

Course Outcomes (CO5): Students will be able to analyze the benefits of innovation for business.

Measurement of innovation for business:

- Choosing the correct KPIs for measuring innovation is necessary because you usually tend to get what you measure. Your goals and KPIs direct your efforts and actions towards them and help people to adapt their behavior as well as take action to reach those goals.
- The other side of the coin is that untracked activities are easily forgotten, which can lead to a couple of different problems: there are organizations that try to measure too many things at once, as well as those who aren't measuring anything at all.
- Measuring innovation is only worth it with a set of metrics that help you to move your business forward. This might not always be straightforward to figure out, so many organizations tend to measure what's easy not what's important instead. It's easy to pick out a couple of simple KPIs without thinking whether they will actually be useful for your business in the long run.
- The most important function of measuring innovation is simple: to ensure you're going to the right direction. Innovation metrics allow you to see if you're doing enough of activities, and more specifically, enough of the right kinds of activities to be able to actually achieve your results.
- Innovation metrics allow you to see if you're doing enough of activities, and more specifically, enough of the right kinds of activities.
- We believe that as long as you're persistently doing both and measuring innovation in a systematic manner, you're likely to see results.
- Measuring innovation can help you to:
  Guide your resource allocation process
  Hold people accountable for their actions and responsibilities
  Assess the effectiveness of your innovation activities
- Although measuring innovation is definitely worth it in most cases, it should be kept in mind that not all metrics work for everybody. As a matter of fact, there are certain types of metrics that everyone should pay attention to.

Choose metrics with caution

While some metrics are more straightforward than others, some of them can be quite ambiguous. The latter types of metrics, along with the too simplistic metrics we already talked about, should be approached with caution, as they often lead to undesirable results down the road. As mentioned, KPIs have a huge impact on behavior, which is why it's important to try to analyze how your KPIs drive your employees' behavior. Although some metrics may seem great at first, the results down the road might not be what you wanted to achieve. Therefore, you shouldn't be afraid to changes your metrics as you learn how the organization responds to them.

- **Input metrics vs. output metrics**

  The main role of innovation metrics is to make sure you're doing enough of the right activities to reach your goals. They are typically divided into two different categories input metrics and output metrics.

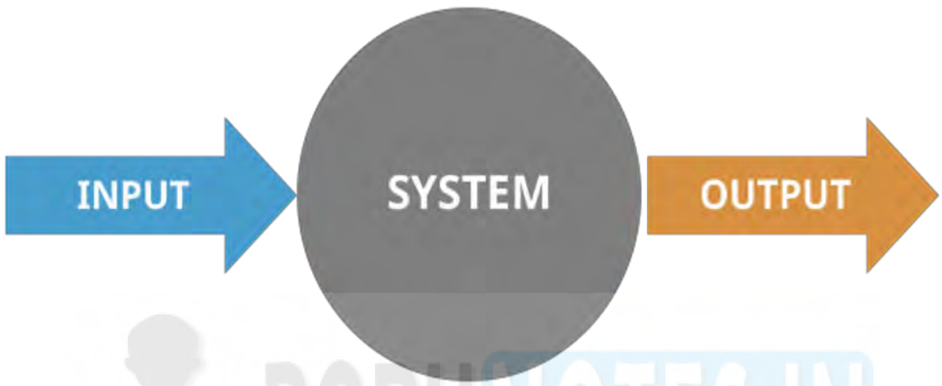

Figure 5.1: Input-Output Metrics

- Input metrics measure if you're doing enough of the right activities to reach your goals and whether you allocate your resources properly, whereas output metrics measure whether these activities and resources have had the desired impact on your innovation process. When deciding on your innovation metrics, we recommend measuring both inputs and outputs as measuring only either one of them is bound to yield one-sided results. Keep also in mind that if you want to change your output, you must most likely change the input first.
- Keep in mind that while it's valuable to acknowledge how each of the five aspects affects your innovation management process, it's not necessary to have concrete metrics to measure all of the following aspects.

1. Capabilities

- Capabilities refer to the different abilities the organization has for creating and managing innovation and revolves primarily around people.
- Capabilities refer to the abilities, practical skills, unique insights and know-how of the people. In addition, it also covers the tacit knowledge, and other information capital, as well as financial capital needed to create innovation.
- Capabilities refer to the different abilities the organization has for creating and managing innovation If you can answer to the question: "What is our set of capabilities required to innovate?" you're most likely to be able to choose the right metrics to measure this. You could start by measuring the number of new challenges provided for employees or the level of competence and abilities in a team.

2. Structures

- By structures, we refer to the organizational structure, processes, resources (the right tools to support innovation management, such as innovation management software and infrastructure of the organization that enable the effective use of the aforementioned capabilities.
- Your structure metrics should support resource allocation, efficient innovation management and idea-to-launch process, as well as speed of testing of new ideas. You can encourage these structure-supporting aspects by for instance measuring the relative or absolute budget allocated to innovation or R&D, the velocity of the build-measure-learn feedback loop or the cycle time of ideas in each phase of the process.

3. Culture

- Culture enables the organization to acquire the capabilities related to people. Although it might be relatively difficult to effectively measure direct impacts on culture, the right type of culture may have a tremendous effect on the innovativeness of an organization.
- An innovative company culture supports the process and need for always getting better, learning and experimenting at a fast speed, as well as balancing between freedom and responsibility.
- Therefore, your innovation metrics should always support these traits, directing your initiatives towards more innovative company culture.
- Some of the key supporting input metrics in this category could be the number of new ideas and initiatives coming straight from employees vs. coming from management, or the time spent on development vs. operations by all levels of organization.
- The output metrics supporting an innovative company culture could be the employee participation in innovation activities as well as the employee score for innovativeness of the organization. For some larger firms, it may even be relevant to measure the number of employees trained in innovation methodologies over a certain period of time to keep track of the overall improvement in the company.

4. Leadership & Strategy metrics

- Strategy is ultimately about making a deliberate choice between a number of feasible options to have the best chance of “winning”.
- It is the high-level plan for the organization to achieve its goals and long-term success, whereas leadership is needed on the way there.
- The link between strategy and innovation is an extensive topic, because each organization has a unique perception of what strategy means to them. This shouldn’t obviously be separate from the execution and your metrics should be aligned with your strategy and also with each other.
- It is, however, often easier said than done, because most of the organizations fail to link their strategy to concrete operations. In fact, only 30% of the strategies succeed. Most of the organizations fail to link their strategy to concrete operations, which is why only 30% of the strategies succeed.
- If you want to learn how to measure your strategic aspects, we recommend you have a look at The Play-to-Win Strategy Canvas, which can help you to test your assumptions and find metrics to measure whether these assumptions support your strategy.
- The point is to link your strategic choices to concrete actions by assessing what needs to be true for the choices to be good ones in order for you to test them. The Play-to-Win Strategy Canvas works well when you want to make sure your concrete actions are actually taking your strategy forward.

- Some concrete leadership & strategy metrics are the percentage of management's time spent on strategic innovation or the number of executives receiving training related to innovation for example innovation management process related, or industry specific training.
- The aforementioned metrics can be good if you want to renew your business or your staff doesn't have much prior experience in innovation management. It is, however, not relevant to measure these types of things if you're used to innovate constantly for example businesses that are operating in creative industries.
- Needless to say, in order for you to achieve your strategic goals, your metrics need to reflect them as well, because the last thing you want to do is to accidentally focus on incentivizing people to do things that are counter-productive.

5. Business & Product metrics

- This category is slightly different compared to the others because it's more focused on measuring your results, whereas the four first ones measure the conditions for you to succeed.
- Business and product metrics, or so called "ROI metrics" are probably one of the most straightforward metrics of the five categories, as they focus on measuring your results, such as the number of new products launched, patents acquired, the revenue gained from new products launched, or new markets entered the past year.
- If you're in the early stage of your innovation lifecycle, it might be smart to measure the product-market fit for new initiatives or the growth rate for new products as well as the actual vs. expected breakeven time.

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The benefits of innovation for business

- Benefits of innovation in business can include efficiencies, growth and increased competitive advantage, as well as enhanced reputation
- Innovation can deliver significant benefits. It is one of the critical skills for achieving success in any business. It can help you solve problems, generate profit, increase your market share and edge out competitors.

Advantages of innovation in business some of the key practical benefits of innovation are:

- improved productivity
- reduced costs
- increased competitiveness
- improved brand recognition and value
- new partnerships and relationships
- increased turnover and improved profitability
- Innovation enables problem-solving and provides creative insight that allows you to look at things from a different perspective, regardless of whether you are developing a new product, refreshing strategy or finding an original way to stay ahead of the competition.

Common approaches to innovation

How you approach innovation will depend on your business strategy, capability and market understanding, as well as how much finance you have available.

Different approaches to business innovation

You could choose one of many approaches to innovation in your business, including:

- continuous product and process improvement
- improving your product design
- upgrading your business model by offering complementary services or products
- using new technologies to add value to an existing product or service
- exploiting a new technology to create a new product, service or business

Barriers to innovation in business

Understanding these barriers can go a long way toward helping you and your company navigates the innovation process, so we dove into each of the five barriers to clarify what they really mean, and how you can avoid them.

1. Politics/Turf Wars/No Alignment

- As a company grows, so does the complexity of its internal politics. This is why smaller startups often have an easier time innovating than larger corporations.
- Implementing a new innovation program can require sweeping internal changes, meaning that some employee roles will change for the better, and others will change for the worse.
- As such, people begin to think politically when the idea of organized innovation efforts comes up. Those who feel threatened by the change might then actively work to undermine it.
- Avoiding these issues can be quite tricky, and sometimes impossible, but there are a few things to keep in mind.
- First, create an environment where people feel comfortable being open and honest. Many times, people will voice objections to a change but remain silent on what truly drives their hesitation. In order to steer clear of rumors, hearsay and personal attacks, make sure everyone's cards are on the table in order to even the playing field when advocating for innovation.

  Also, be sure to illustrate how innovation as a whole and individual innovation initiatives can benefit the company, to pull everyone together on the same team.

2. Cultural Issues

- Risk and innovation go hand-in-hand. As the cliché goes, you can't make an omelet without breaking a few eggs.
- Innovation will inevitably lead to some failures, and for some businesses, any missteps are viewed as unacceptable.
- Risk and innovation go hand-in-hand.
- This stigma of failure can slow down a company's innovation processes, and in many cases even grind them to a halt. Considering that innovation can save a company by helping them to avoid becoming obsolete, this can be a big issue.
- One great way to minimize risk aversion in an innovation program is by optimizing your proof-of-concept process. While this will not completely eliminate risk, it can allow your company to make informed decisions that will have a higher rate of success.

3. Inability to Act on Signals

- A large part of enacting an innovative new product, service or procedure is recognizing the need for the change in the first place.
- KPMG states that executives identified the inability to act on signaled market changes as the third-highest obstacle to innovation.
- Businesses can sometimes stagnate in their past successes. They spend most of their time optimizing their current model and their current processes that they forget to take a step back and evaluate what is working and what is not in their industry.
  This is how Uber surprised the taxi industry and AirBnB upended the vacation rental sector.
- These service companies recognized how their respective industries were failing to take advantage of the benefits of new technology and changing market demands, and they innovated to fill that void.
- Make sure that your business has a dedicated innovation program with an established leader at the helm who has experience in the technical and/or business side of innovation, and the knowledge to recognize relevant trends.

4. Lack of Budget

- As innovation is an ongoing endeavor that often has long-term goals, it can be difficult to measure its impact. This can lead to a frustrating back-and-forth with those allocating the company budget because if innovation takes time to deliver, funds may be cut. But if innovation funds are cut, then it is virtually impossible to deliver.
- According to the Harvard Business Review, the key to making your innovation budget a priority is to start small and to stop thinking about innovation as a one-size-fits-all undertaking. In the beginning, only start a few projects.
- Don't overextend your resources, but think of it as an investment. Once one of those smaller projects begins showing results, then you can slowly expand until you have a thriving innovation culture that cannot be stopped.

5. Lack of Strategy, Vision

For many companies, the benefits of innovation are well understood. For those companies, staying relevant is important and they encourage disruption wherever possible.

- However, that can also be part of the problem. Many innovation experts cited a lack of vision and strategy as one of the biggest issues facing potential innovators.
- This is yet another reason why every innovation program needs a clearly defined leader who presides over a dedicated innovation department. What companies need to avoid is having several different departments sinking resources into overlapping issues.
- It's a waste of money, and a sure way to prevent any real innovation because every department will have diverging goals. A dedicated innovation unit can streamline the innovation process and ensure that nobody is doubling upon the work and the research.
- According to process expert, Robert Cooper, out of every 7 new products, about 4 of them enter into the development phase, which leads to the question, why do you think Innovation fails? What are the reasons and pitfalls? Read further below to know the reasons.

Not thinking Long Term:

- Most businesses tend to focus more on short-term goals & results than thinking from a long-term perspective. Each organization sets its goals, results to achieve for the next Quarter and the strategy towards achieving those goals
- In this process of achieving short-term targets, most companies tend to spend big and allocate resources on sales and marketing. Thus, most of the budget is used up leaving very little towards R&D and Innovation.

Lack of Innovation Mindset:

- Another reason why Innovation fails is due to the employee mindset within the organization itself. Employees should have an innovative mindset to create something new thereby solving the innovation problem. The culture for this mindset has to be cultivated within the organization itself starting from the top and permeating in every level of the organization.
- Companies need to boost creativity, brainstorm new ideas and nurture their employees to go one step beyond and think out of the box.

Fear of Failing:

- Let's say, your organization tried to come up with a very innovative product to solve your user's problem. You have spent a considerable amount of money and resources on research & development, sales or even marketing. But down the line, it turns out that the product didn't click or turned out to be a failure.
- What impact does it have on your employees for future breakthroughs? Employees tend to be more afraid of failing at something that they decide not to even try anything new at all.
- A sense of low confidence can develop among the employees, a reluctance to try new things or get involved in new challenging projects.

Lack of Innovation structure and processes:

When you lack a structure and process in your innovation strategy it's really hard to get tangible results out of it. Most organizations actually do not have a methodology framework or a structured process.

- A process and methodology are certainly required to achieve success when it comes to innovation. A proper framework is needed to evaluate the benefits and drawbacks. Assessment and analysis should be the top priority for the companies and individual innovators.

Not understanding your customer's needs:

- Innovation can also fail when organizations don't know what their customer wants and needs are. A lot of new innovations fail because organizations are unaware of what user problem they are trying to solve, what do their customers want or come up with products which customers did not want in the first place.
- For disruptive breakthroughs, organizations need to understand what their customers are thinking and feeling, how they interact outside of their business with other companies and their consumer behavior.

Lack of Team Motivation:

- You cannot innovate alone or it isn't a one-man's job. Unless you have a team, which is fully behind and supporting what you are trying to solve, Innovation cannot succeed.
- Innovation requires the harnessing and investment into individuals and teams. A number of initiatives fail due to the lack of rewards and recognition programs, transparency tools to generate & evaluate new ideas clearly, facilitated meetings and collaboration (internal and external) efforts.
- With motivated teams you get better innovation ideas, new insights and better outcomes. Your internal innovation teams need to be energetic and fired up to build new innovative ideas and products.

Lack of Budget:

- One of the most common reasons of Innovation failing is due to lack of budget or money invested in innovative approaches.
- If an innovation project isn't being supported with the right money to gather teams, brainstorm ideas, build a prototype, quality testing etc. then it will lose momentum towards completion.
- Budget is like a sign of commitment from the organization towards achieving or creating something extraordinary. Even though a lot can be done with a limited budget, the organization must set right the balance and set aside a budget for R&D and innovation projects.

Post-audits of innovative projects:

- The innovation audit has been introduced, both in literature and in practice. An innovation audit is intended to provide a systematic review of a firm's or a business unit's abilities and processes, to improve its offering relative to customers and stakeholders, in a creative or novel manner
- An innovation audit can be defined as an audit that intends to investigate and improve a firm's capabilities to innovate and perform innovation processes. Innovation audits assess a firm or a business unit's needs and abilities to change, and also in what ways and how fast these needs and abilities are changing.
- Firms, scholars and practitioners believe and contend that innovation audits can improve firm processes and the capabilities to innovate, and thus will lead to improved competitiveness, performance and growth. However, it is not clear from different innovation audit constructs and innovation audits performed what the effects and the implications are, and what happens after conducted audits in firms.
- CBI has done several innovation audits projects in firms. However, what happens after these performed audits is yet not mapped and analyzed. The purpose of this project is to investigate whether, and if how, firms have taken actions on the knowledge provided by different innovation audits and what the results have been.
- This project will be based on interviews in ten companies, where eight of these companies have conducted "measurement" audits and two have conducted full innovation audits.

Organization and facilitation of an innovation workshop:

- With the steep increase in market shifts, consumer demands and competitive forces these days, companies and their employees are expected to be more innovative not just by coming up with more innovative ideas but also by adjusting with the innovative changes happening within the organization.
- The educational system also does not pay much attention to the creativity and innovation of an individual and as the landscape shifts and innovation becomes more important, the innovation skills gap is apparent and increasing.
- Therefore, innovation has become the key to business success. Since competition is ever increasing with rapid changes in technology, organizations are focusing on creativity and innovation in business processes, product lines and management practices.
- If organizations are to come up with innovation and creativity consistently, especially when finding quality solutions for business problems, transformational change is critical.
- Innovation helps an organization to stand out of the traditional business and marketing. It motivates to innovate plans and to come up with novel solutions to the existing problems. In addition, innovation is not something that can be introduced within a day or two. It has to be integrated with the organizational culture to get the best results out of it.
- Training on innovation make them realize the usage and impact of innovative ideas in an organization, and makes people develop their innovative skills with the help of various techniques and tools to generate ideas and solve problems.
- It also gives the opportunity to apply the methods and tools to improve areas of their own work. Transformational change does not imply a slight improvement to business propositions.
- It refers to a change that makes a valuable impact. A facilitator is an expert who can bring about this transformational change in people impacting business proposition. The facilitator also ensures that people's engagement and commitment are consistent with transformational change.
- When a group is brainstorming on a business proposition, the facilitator is one who facilitates the group towards a creative thinking process or innovation.
- Powerful questioning techniques used by the facilitator enable the members of the group to explore more, evaluate paradigms and build on ideas. The very purpose of brainstorming is to build on ideas helping people to become more constructive and innovative.
- The facilitator helps the members of the group evaluate paradigms and facilitate a shift in paradigms provided they are helpful in exploring possibilities. Shifting of paradigms is often difficult because it has been the framework that has worked in the past. However, exploring possibilities often leads to innovation.
- The facilitator taps the creativity in the members of the team through exercises and activities. Innovation can be blocked by obstacles such as lack of support within the team, past innovations failure, lack of organization of the process of innovation, difficulty in choosing because of the enormous size of information, etc.
- The key role of the facilitator is to address these blocks and help the members of the team invoke change. A facilitator can facilitate innovation only when the organization or the company advocates innovation and creativity and has a culture supporting it.

But a supportive innovative culture can also have a lot of positive outcomes like:

- Understand how to promote and manage a dynamic innovate
- Analyze various business models of innovation and the role of advancing technology in innovation
- Explore the types of innovation and gain clarity on challenges of innovation
- Identify the various innovation enablers
- List the various tools and techniques for generating innovative ideas
- Discover the benefits of innovation to business

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