

## 2.5: Innovation and Entrepreneurship

### 2.5.1 Innovation and Entrepreneurship



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Alt text: The word "innovation" written on a carpet

The concepts of innovation and entrepreneurship are undeniably interrelated:

Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service. It is capable of being presented as a discipline, capable of being learned, capable of being practiced. Entrepreneurs need to search purposefully for the sources of innovation, the changes and their symptoms that indicate opportunities for successful innovation. And they need to know and to apply the principles of successful innovation (Drucker, 1985, p. 19).

Drucker (1985) argued that innovation should be viewed as an economic or social phenomenon rather than a technological term. Innovation is not about making new inventions, but rather about recognizing how to take advantage of opportunities and changes: "Systematic innovation therefore consists in the purposeful and organized search for changes, and in the systematic analysis of the opportunities such changes might offer for economic or social innovation" (p. 35). This is consistent with Schumpeter's (1934) view that innovation arises from new combinations of materials and forces.

To better understand the interrelationship between innovation and entrepreneurship, we will consider some of the building blocks for both innovation and successful entrepreneurship.

### 2.5.2 Competencies and Core Competence

Competencies are the necessary ingredients for entrepreneurial competence:

*Individual competencies* are the combination of learnable behaviors that encompass attitudes (wanting to do), skills (how to do), knowledge (what to do), practical experiences (proven learning), and natural talents of a person in order to effectively accomplish an explicit goal within a specific context.

*Collective competencies* are the synergistic combination of the individual competencies of team members within organizations. There is a continuum that exists from low-functioning teams to high-functioning teams. High-functioning teams, although very rare, are those that apply collective competencies the most effectively (Matthews & Brueggemann, 2015, p. 10).



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Alt text: group of men standing in a circle in gear

*Core competencies* are those that are collectively held and that include “the learnable behaviors the entire organization must practice in order to achieve competence in relation to the organization’s purpose and its competitive environment. A core competency encompasses the knowledge, skills, and technology that create unique customer value” (Matthews & Brueggemann, 2015, p. 11):

Organizations need to identify what core competencies they need to cultivate in their precious human resources in order to meet a competence level that rises above the competition. The three tests to identify a core competence are:

1. First, a core competence provides potential access to a wide variety of markets.
2. Second a core competence should make a significant contribution to the perceived benefit of the end product.
3. Finally a core competence should be difficult for competitors to imitate (Matthews & Brueggemann, 2015, p. 12).

Entrepreneurs must assess their and their organization’s individual competencies to better understand how to fill competency gaps and build collective and core competencies.

### 2.5.3 Elements of Innovation

Matthews and Brueggemann (2015) identified the following 12 *elements of innovation*. They argued that innovation is best understood by first examining each of the following elements.

#### Innovation Degrees

*Incremental innovations* are small-scale improvements on what is already being done, often with the intention to improve efficiencies to reduce costs, or improve products or services offered: “Both Six Sigma and Lean are well-regarded managerial quality improvement programs that explicitly target the removal of many types of organizational waste and variability.... An incremental innovation can be used to differentiate products for marketing purposes” (Matthews & Brueggemann, 2015, p. 34).



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Alt text: 60% off sign on window in shop

*Evolutionary innovations* involve doing new things for existing customers and markets, and also doing things that extend product offerings to new customers and new markets (Matthews & Brueggemann, 2015).

*Revolutionary innovations* are when businesses pursue new products, businesses, customers, and markets. The impacts from these types of innovations can be much higher than from either incremental or evolutionary innovations (Matthews & Brueggemann, 2015).

### Innovation Types

There are many types of innovations. “Organizing innovation into types makes it easier to understand how you can use multiple types of innovation simultaneously. The fundamental innovation types include products, customer experiences, solutions, systems, processes, and business and managerial models” (Matthews & Brueggemann, 2015, p. 37). Matthews and Brueggemann (2015) combined the innovation degrees with the innovation types to develop The Innovation Matrix.

### Innovation Direction

Innovation direction is a concept that encompasses forward and reverse innovation. Innovation direction is a notion that is based on the source and target of the innovation. A forward innovation would have its source in country X and the target in country X. A reverse innovation would have its source in country Y and later targeted to a different country such as country X. Country X or Y could be a developed or developing country (Matthews & Brueggemann, 2015, p. 40).

### Innovation Risk

The entrepreneurial ecosystem described earlier in this book indicated that individuals, firms, and organizations are interconnected in ways that impact each other. According to Matthews and Brueggemann (2015), *co-innovation risk* occurs when multiple actors in the ecosystem attempt to innovate, which leads to the possibility that a new innovation developed by one company is ready at a different time than a dependent second innovation developed by another firm. For example, it can be disastrous for a computer hardware company to release a new product that is dependent upon new software if the company developing that software does not make it available on time.

*Adoption chain risk* also occurs when multiple firms in the value chain are simultaneously developing new products and services. If one firm, for example, releases a product that must be serviced by a different company before that other company is prepared to offer that service, the product release can fail (Matthews & Brueggemann, 2015).

### Innovation Principles and Tenets



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Alt text: The word “Nonprofit” spelled out with blocks

Both nonprofit and for-profit organizations are governed by principles that dictate how they operate. Non-profits often strive to alleviate social problems while for-profits attempt to satisfy the desires of their shareholders. An increasing number of organizations are adopting alternative measures of performance that include not only economic outcomes, but also social and environmentally responsible results: a triple bottom line (Kneiding & Tracey, 2009). This can—and should—lead to organizations

redefining themselves as pursuing the creation of *shared value* rather than just profits (Matthews & Brueggemann, 2015; Porter & Kramer, 2011):

Companies must take the lead in bringing business and society back together. The recognition is there among sophisticated business and thought leaders, and promising elements of a new model are emerging. Yet we still lack an overall framework for guiding these efforts, and most companies remain stuck in a “social responsibility” mindset in which societal issues are at the periphery, not the core.

The solution lies in the principle of shared value, which involves creating economic value in a way that also creates value for society by addressing its needs and challenges. Businesses must reconnect company success with social progress. Shared value is not social responsibility, philanthropy, or even sustainability, but a new way to achieve economic success. It is not on the margin of what companies do but at the center. We believe that it can give rise to the next major transformation of business thinking. ...

The purpose of the corporation must be redefined as creating shared value, not just profit per se. This will drive the next wave of innovation and productivity growth in the global economy. It will also reshape capitalism and its relationship to society. Perhaps most important of all, learning how to create shared value is our best chance to legitimize business again (Porter & Kramer, 2011, p. 4).

### Innovation Thresholds

Organizations should strive to achieve their *innovation threshold*:

An innovation threshold is a marker that each business sector needs to achieve in order to be competitive. To thrive, an organization cannot under-innovate, while over-innovation would be wasteful and ineffectual. Innovation thresholds range from low to high, and are different for each business sector. Once an organization achieves the innovation threshold, additional innovation may not matter (Matthews & Brueggemann, 2015, p. 52).



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"[American Airlines MD-82 N455AA](#)" by [caribb](#) is licensed under [CC BY-NC-ND 2.0](#).

Alt text: Neon sign saying “insurance” and an airplane flying

After achieving their innovation threshold such that more innovation might not generate enough extra value to make the effort worthwhile, organizations must rely on other innovation competencies. For example, some industries like insurance and airlines have a relatively low product innovation threshold, so after reaching it they must rely on other forms of innovation and entrepreneurship competencies “such as creativity, culture, strategy, leadership, and technology” (Matthews & Brueggemann, 2015, p. 53) to further advance their goals. Higher technology fields normally have higher product innovation thresholds and can gain much by striving for more product innovations.

### Innovation Criteria

Matthews and Bruggemann (2015) argue that a design should be judged based on its desirability, feasibility, and viability: “An innovative design needs to be desirable, feasible, and aligned with a sustainable business model” (Matthews & Brueggemann, 2015, p. 53).

### Innovation Processes

Another element of innovation is the set of planned innovation processes that are required to make innovation happen. These processes must balance the need to provide customers with what they want with what is technologically feasible and financially viable. One example of an innovation process is *design thinking*.



## Innovation Diffusion

Lundblad (2003) defined *diffusion of innovation* as “the adoption and implementation of new ideas, processes, products, or services” as she studied the diffusion of innovation “within and across organizations” (p. 51). This concept is particularly important because many sectors of the economy strive for organizational improvement, but “innovations often are not diffused within and across organizations to achieve improvement” (p. 51). To illustrate her point, she described how research in the healthcare sector has led to the development of new advancements in clinical practice and process improvements, yet—despite the relatively low cost to implement many of these process innovations—it often takes many years before these improvements are adopted into practice, if they ever are. This means that often there is a gap between when an innovation is developed and when it is implemented in practice.



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Alt text: People being taught medical skills

The *Theory of the Diffusion of Innovation* can help us understand what we must do in terms of implementing steps and processes for innovations to be diffused into the areas of practice where they are needed. There are four main elements of the theory.

The first element of the theory is *the innovation* itself, whether that be an idea, a product, a process, or something else that is new to the potential adopters. The theory says that there are several characteristics of the innovation that affect its rate of adoption, including its complexity and its compatibility with whatever it will be connected to within some manner (Lundblad, 2003).

The second element is *communication*, specifically the processes used by people to share the information needed to develop a common understanding. The rate of adoption will depend upon the sources of communication, even more so than the technical information contained in the messages (Lundblad, 2003).

*Time* is the third element of the theory. According to Rogers (2003), who developed the Theory of the Diffusion of Innovation, three considerations are related to the time element. The first is the *innovation-decision process* that describes the gap in time between when a potential early adopter learns about an innovation and either adopts it or doesn't. There are several stages that the potential adopter goes through during this time frame. Second, Rogers (2003) classified potential adopters as “innovators, early adopters, early majority, late majority, and laggards” (Lundblad, 2003, p. 54) based upon how early they were likely to adopt an innovation. Finally, the *rate of adoption* describes how quickly the innovation is adopted. As Lundblad (2003) noted,

Innovation adoption tends to follow an S-shaped curve, meaning that only a few individuals initially adopt the innovation; but as time moves on and more and more individuals adopt, the rate increases. Eventually, though, the adoption rate levels off and begins to decline. (p. 54)

The final element of the theory is the *social system*. Rogers (2003) said that diffusion of innovation occurs within a social system, which might be somewhat limited, like the members of an organization, or widespread, like all of the consumers in a country. Some members within a social system, such as “opinion leaders, change agents, and champions” (Lundblad, 2003, p. 55), influence others.

## Innovation Pacing

Innovation pacing refers to the speed with which an organization delivers innovations, and how that impacts its ability to compete: “Pacing is influenced by your innovation capability and the ability of your customers to adopt those innovations” (Matthews &

Brueggemann, 2015, p. 60).

### Innovation Value

*Red ocean strategies* focus on competing with other players for market share within industries that currently exist. This type of thinking can be a constraint if it restricts organizations' abilities to adapt to change and to figure out ways to pursue *blue ocean strategies*, namely entirely new markets, business models, industries, and other opportunities that others have not yet been conceptualized or pursued. Blue ocean strategies are not about competing with others; they are about rendering competitors irrelevant because they are not playing in the same field as your organization, and, more importantly, they are not matching the value that you create for customers in the new market that you opened up: "Value without innovation is an improvement that may not be sufficient for organic growth. Innovation without value does not provide the utility that customers would be willing to purchase. Innovation needs to be aligned with value comprised of utility, price, and cost" (Matthews & Brueggemann, 2015, p. 62).



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Alt: Group listening to man talk

### Disruptive Innovation

The last element is *disruptive innovation*:

Disruptive innovations are different than incremental, evolutionary, and revolutionary innovation degrees. A disruptive innovation is not a revolutionary innovation that makes other innovations, such as products and services, better. Rather, a disruptive innovation transforms any type of innovation that historically was expensive and complicated into an innovation that is affordable, simple, and available to broader markets (Matthews & Brueggemann, 2015, p. 63).

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