

PART 1

Think Up a Method

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Innovation: An Unfinished Journey

1.1. The journey as the end

There are two things man could not stop throughout history: technology and innovation. And over time, man has also expressed a need to define innovation more accurately. In most cases, innovation was first considered as an economic concept. Under King of France Louis XIV, Maréchal Turgot developed the term with clear productivity connotation, which takes us back to the 17th Century. One of the greatest economists of the 20th Century, Joseph Aloïs Schumpeter, even wrote in his book *Capitalism, Socialism and Democracy* published in 1944, “Capital concentration tends to bureaucratize innovation and tends to dispossess the enterprise function from its deepest justification, which can question capitalism’s survival”.

However, toward the end of the past century, legendary management professor Peter Drucker deplored that innovation still remained for a lot of people a “flash of genius”, while it should rather be considered as “a systematic, organized and rigorous discipline” [DRU 02]. And we hold that the “genius inside” understanding still prevails.

Over the past few years, a surge of interest has been vested in widening the meaning of the word innovation: not just a term or a concept, but rather an entire field within a paradigm shift aiming at creating growth through a higher performance culture. However, to find the key to growth, it is necessary to look in the opposite direction and this is counterintuitive. The key to growth resides in the obsolescence of objects; because what is stable in an economy is neither the success of the day nor the established practice.

Following this approach, many organizations and even countries have defined themselves as ecosystems that cultivate innovation where they previously considered creative performance and innovation separately. This involves culture, which long used to be a word foreign to innovation. To quote the INSEAD 2011 Global Innovation Index [DUT 11] “The passion to innovate must eventually originate from the heart, where we can turn our dreams into reality without losing the essence of its unique and emotional selling properties”. What a departure from past product-based concepts! Yet, the same report acknowledges that “No international index makes a serious attempt to measure culture or creativity across nations”.

Although an evolving definition of innovation is what we probably need and desire and is debated with increasing intensity, the usage of its generic term loses precision as time goes on. Any innovative organization would be one that wants to alter a status quo with respect to its markets. Its medium, method, size or geographic localization would be irrelevant and the sector in which it operates not a constraint.

Yet, there is more to innovation than innovation itself. While innovative activity was the previous limited focus, transformative power goes beyond and should be sought. This sets a distinction between result (from innovative activities) and process (a transformative agent). The result is the tangible outcome of some “innovative phase”, and to become an *innovative result* it is supposed to somehow reach a usage, a market. That process is the story behind the innovative phase, accounting for eventual success or failure stories.

However, there exists a third pillar that supports innovation. It is often a result of peculiar elements characterizing those organizations that are famous for innovating, including the culture they have forged, the attitudes of their personnel, even the managerial behaviors they have nurtured internally. That kind of postmodern sophistication cannot be taken for granted.

When a company’s innovation is perceived as continuous, we see the above three components of innovation – *process*, *result* and *culture* – as merging. While academics would maybe wish to standardize innovation, a complete reference terminology is not widely available apart from some attempts [SHO 12] and professionals generally refer to their business insight and experience when innovating.

However, if innovation is said to correspond, as it should in our opinion, to a specific design process, the question that should be asked becomes “how to model such a design process?” In other words, *how to account for a company that innovates and one that does not or does less*. One problem is that the formulation of innovations may require new knowledge that has not been fully scoped. In other terms, innovation triggers a crisis of object identity, objects that may be of products or services, or of companies through their market positioning or their business model.

If information technologies are already operating like a business within a business, innovation models, methods, techniques and tools are already available. Perhaps, some organizations are already functioning in this way.

1.2. Application of maturity levels in the innovation process

Management science still tends to rest on an old paradigm that talks about closed worlds. Any new disciplines should breathe the thinking of openness, multiplicity to tools and no unnecessary opposition from them.

Our research during the 2000s found that an innovative situation is not a binary one, and there is no one-size-fits-all innovation process maturity level. Instead, several levels – we will call them *innovation capability maturity* levels – apply, and we actually identify five.

This book is focused on tracking the potential for innovating at each of these levels and accounts for the process specificities that signal a more or less *capacity to innovate* – something we will from now on dub “innovability”. By enabling an awareness of one’s innovability, it becomes easier to detect the pre- or postconditions for a given level and also to improve it. The first underpinning assumption is that the higher an innovability level is, the more you can grow competitiveness in markets – and in a sustainable manner. The second footing is that every level can be exploited maximally, which yields the best available build for further improving innovability. The improvement logic behind this is *don’t do more, do better; don’t find more ways but a better one*. These are the goals on climbing the innovability ramp with the best accelerating gradient.

For managing the innovation process, new responsible profiles appear revealing the centrality of innovation with corresponding job titles or positions such as Chief Innovation Officer, Director of Innovation,

Innovation Pilot Committee or similar. Many possible roles in the company are actually legitimate and new processes, core to the enterprise, manifest the emergence of *designing innovation*, beyond process, result and culture.

The fact is that we depart from the old problem-solving paradigm of cognitive psychology, traditional creativity methods and other rationalized approaches. When you focus on the scenario method, you need to define the different scenario. Yet, a truly innovative approach gives you a blank sheet – an empty space. No problem-solving method can help as you start from a mathematically empty set. Of course, a vast knowledge exists that you may want to widely tap into. However, a *terra incognita* is that very new competitive frontier that companies need to grasp to become successful because they just do not have an *a priori* solution to hand. Simply solving problems would keep them to old views, definitions, patterns and habits. Many crafts and industries too, when a dominant design has reached success and the market responds by wanting more of same (i.e. consequently fixing the rules and closing further evolution), then fall into the non-innovating camp. They can be trains, jewelry, gourmet food, etc. Innovating calls for a change of viewpoint from what innovation has been so far.

In this book, we will consider five maturity levels, as depicted in Figures 1.1 and 1.2.

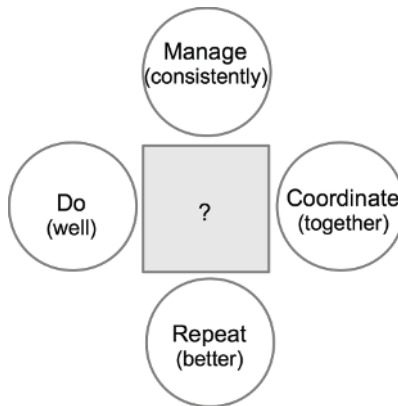


Figure 1.1. Principles of the four intrinsic maturity levels that apply when operationalizing innovation. The four levels start from “Do” and turn to “Repeat”, etc., in a counterclockwise manner. The fundamental question then is to install another maturity level that prevents them from starting all over again for each sought innovation, thus installing true sustainability in innovation

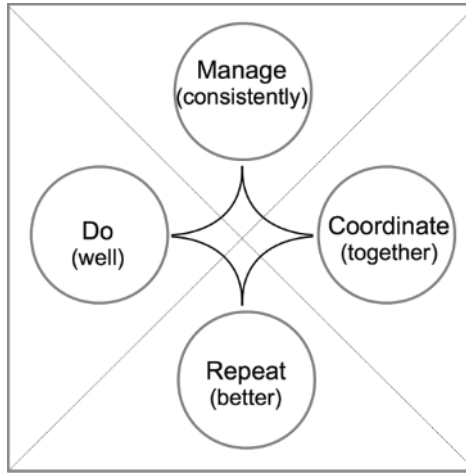


Figure 1.2. Each maturity level is developing skills that are both unique and indispensable for further progress. Hence, a fifth maturity level should integrate them all if anything

1.3. The effects of the knowledge society

Innovating is the definite art of managing the couple:

knowledge → concepts

within our knowledge-based society, where information is abundant and knowledge the great differentiator. On the one account, as proclaimed at least since the beginning of this century, the knowledge-based society is slowly taking hold in all environments. On the another account, the dominating capital, even under immaterial embodiments, is still information in all its forms. However, as value is shifting toward knowledge, we shift the valuation to the capacity to innovate, to its measuring and progressing. It will be the work of innovation to offer new models, methods and tools to fertilize and spread this knowledge.

Innovation is nowadays a renewed competitiveness tool for companies, administrations and any organization. It is the contemporary, even fashionable and favorite way to create value. And that is comprehensible since innovation is no longer to offer something necessarily new to the market. It is fundamentally *the ability to distort a status quo*. Realizing this already supposes a change in the way of thinking.

In so pursuing, innovation becomes a burning issue for regions and nations seeking sustainable growth and wealth. However, this notion pressurizes all the actors. Although innovation issues are more acute than they ever have been, the *degree* of innovation implementation or organizational innovation ability is rarely discussed. Is it not here that the difference between competitive businesses lies?

The models of innovation continue to evolve under the permanent building of experience. Yet, innovation remains hard to measure with objective metrics. This is what leads us to opt for a categorization of levels of maturity in innovating. These levels are initially defined structurally, although quantitative measures can be added later.

Certainly, we can still distinguish between *incremental* and *radical* or *breakthrough* innovation as is common practice. However, organizations need to learn how to manage innovation and regulate its intensity. This book provides guidelines for managing innovation *dynamically*, i.e. by considering the interactions between the subsystems of the organization.

1.4. What the current socioeconomic context indicates

The current socioeconomic context is marked by many uncertain factors:

- a very weak economic growth, even in the luxury goods industry where growth rates of 7–8% were certified in 2010 and where diversity enabled the handling of the crisis;
- money in crisis. Due to the financial crisis, even if other reasons are responsible for weaknesses, major world currencies suffer;
- a real yet indeterminate recovery. Despite its visibility, the status and level of the recovery is weak;
- with respect to emerging countries, every leading economy agreed to try to support their growth. Yet, the balance between “emerging countries” and “developed countries” has grown into a semantic difference;
- shares of companies are cheap in a fragile stock market;
- growth areas with major connotations: energy and eco-energy, environment, health and high technologies.

This context urges investors to be careful and selective, but is this enough? This is unsure, as the time calls for more than bursts of reaction: a policy mix of disruptive innovative measures, not the exploitation of obsolete past patterns.

It is true that while we can agree in drawing up such an assessment, methods for survival at the least and eradicating the crisis entirely at most are uncertain. We can state that the Western economy, perhaps even its civilization, is at a crossroads, and that it is indispensable to acquire a sufficient understanding of methods from Asia, to not capitalize on material assets – which lose value anyway – but on growing legitimate know-how. What does this mean?

Clearly, we believe that the innovation saga is moving to a level of deeper awareness and that is why we believe in giving status to the several maturity levels in innovability¹. Awareness of these levels is part of future progress, where innovation shifts from a value-addition argument to forcing competitiveness.

The disciplines of innovation, economics, forecasting and marketing are designed to approach each other closely in the coming years.

Understanding dynamic innovation is what will make the organization more competitive and more resistant to the inevitable socioeconomic storms and upheavals which will be met. Of course, many decisive factors such as technology remain. The challenge is to find new relevant and dynamic links between factors. Innovation models have evolved through four phases [CAS 02]:

- *linear*, by aligning “demand pull” and “technology push”;
- *coupled*, by taking into account the interactions between different elements conducive to innovation (technology, design, engineering, marketing, etc.), and the feedback between them;
- *parallel*, by integrating stakeholders around and within the organization, including upstream with suppliers and downstream with customers or by various alliances and relationships, possibly in open ways;

¹ We will call innovability the ability to innovate.

– *integrated*, through integrating systems and networks flexibly and continuously, which then grows into dynamic innovation.

When asking “how does a given country support innovation?” the answer is primarily quantified into political and economic indicators (e.g. loans, financing, advances, credits, patents, PhD, licenses, subsidies, start-up creations, etc.), but dynamic methods are lacking and corresponding tools are yet to be developed. Having operated in poor countries, we formulated Haiti’s theorem – *there are as many potentials for innovation within Haiti as in Silicon Valley* – but it is evident that the conditions of emergence, subsistence, growth and transfer make all the difference. With this knowledge, will we one day be able to compute the cost of non-innovation and hence become able to trigger the right working dynamics and the right metabolism for innovating?

It is clear to us that we need capability-based models for innovation and for measuring its productivity. Value creation is at stake and that cannot be reduced to counting innovative results.

1.5. Who can benefit from this book and how?

The fundamental tenet of this book is to enable both mental and structural innovations. The mental component is how-to-think in innovation business situations and the structural one is the organizational ways that support the first.

Therefore, the approach set in this book is of interest to a wide range of responsible cadres which include:

- the general direction and strategy, management and innovation teams, research and development directors, and marketing directors;
- managers in charge of the implementation of methods, techniques and tools for innovation in their business;
- local and regional communities, directors of public institutions such as hospitals and specialized agencies and more generally, public actors and local communities and social and political organizations;

– change management and innovation consultants, teachers, researchers and advanced students and more generally all prescribers of innovation.

The framework provided in this book puts these individuals in a position for the easiest possible path to improvement, without compromising the overall objective. It offers an articulation between:

– *experience*, which can potentially source new possibilities but often closes down other possibilities. The book focuses on *how to mobilize* it in such a way that experience becomes poised to force a change in the approach;

– *innovation*, which is the quest for altering a status quo in certain areas or conditions.

This explains why managers at all levels – including project managers and asset and other resource managers – are educated by this book. By reading this book, all responsible individuals will gain knowledge about:

1) learning to ensure the inclusion of innovation in the value system of the business;

2) learning how to control the degree of innovation that you set out to achieve;

3) learning how to create a culture conducive to innovation;

4) creating a company dubbed as a “network” without changing an organization dubbed as a “pyramid”;

5) learning new method-based skills for incorporating new innovation in the organization and developing existing ones;

6) going beyond the control of technology and know-how, to having an awareness of its value;

7) becoming a customer-centric company known for its reactivity, and a market-centered one that anticipates change;

8) creating a network of innovators – or better, of *innovators* – in your organization and outside it;

9) increasing your “inno-potential” and achieving a structured “inno-engine” capable of generating relevant innovations;

10) having a sustainable innovation system.

1.6. How to use this book?

Do you believe that you must spend a fortune to start an innovation program? Do you not deserve a guide that shows you just what innovating better means? Why not start by clarifying issues and classifying the right thing to do from where you stand at present as an organization?

This book is a methodological guide that will accompany you wherever your steps take you in your efforts to innovate. The methods and tools described herein can be equally applied to businesses and other organizations, both public and private owing to the fact that all these establishments undergo at some point similar transformation needs when dealing with surrounding pressures. The book contains ideas, tools and techniques that you can immediately put into action in your context. These methods will increase the capacity for sustainable innovation to generate results and profits.

The framework of the book reflects an augmentative approach but you may consider starting at any particular level, possibly your own. The appendices provide a rich set of tools to create innnovability awareness with specific sheet guides (e.g. barriers to innovation).

Ten or perhaps twenty years from now, innovation will almost certainly be raised to the status of a scientific investigation. Automatizing innovation may even become a standard topic. Yet, the supreme art for engaging today in advancing innovation is how to raise the capacity to monitor and reason about your innovation intensity; along with, of course, why, when and how much should you innovate. And to begin with, it is the control of the degree of innovation that you want to achieve. That is essentially the mandate we would charge innovation management with for the next few years to come.