



Making Innovation Work

How to Manage It, Measure It and Profit From It

THE SUMMARY IN BRIEF

To compete effectively, you must innovate — not just once, but consistently, in all your products, services and business functions. But, profitable innovation doesn't just “happen.” It must be managed, measured, executed on — and few companies do that well. *Making Innovation Work* offers the first real solution: a start-to-finish process for driving growth from innovation.

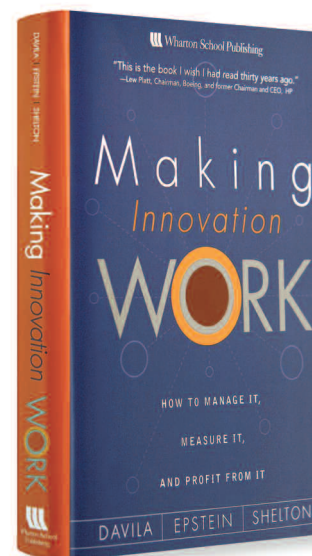
The authors draw on unsurpassed innovation consulting experience and a thorough review of innovation research. Their techniques have been proven at top companies ranging from Apple and GE to Toyota. They demonstrate what works, what doesn't and how to use all of your management tools to maximize the value of your innovation investments.

You'll learn how to define effective strategies and organizational structures for innovation, manage innovation more successfully and motivate teams to deliver and infuse metrics throughout every phase of the innovation process.

Making Innovation Work takes the mystery out of profitable innovation, showing how to lead it, track it and get more of it.

IN THIS SUMMARY, YOU WILL LEARN:

- How to define innovation strategy, design portfolios and encourage value creation.
- How to match innovation to your overall business strategy.
- How to generate successful new ideas that drive maximum ROI.
- How to make innovation truly integral to your company's business mentality.
- Ways to prevent your company from killing off its best new ideas.
- How to leverage innovation resources both inside and outside the organization.
- How to implement the right metrics and the right incentives to drive results.



by Tony Davila, Marc J. Epstein and Robert Shelton

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THE COMPLETE SUMMARY: MAKING INNOVATION WORK

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Introduction

Much that is held as common wisdom regarding how successful innovation is managed is wrong. Somewhere along the line, the correct set of rules for innovation have been misplaced, distorted or simply misinterpreted. This is not to say that organizations are not innovative — obviously many are. But how and why these companies are innovative is very different than what many managers think.

Here are three new, important perspectives for senior managers:

1. Innovation, like many business functions, is a management process that requires specific tools, rules and discipline — it is not mysterious.

2. Innovation requires measurement and incentives to deliver sustained, high yields.

3. Companies can use innovation to redefine an industry by employing combinations of business model innovation and technology innovation.

Innovation is a necessary ingredient for sustained success — it protects your tangible and intangible assets against the erosion of the market.

Innovation is an integral part of the business, and as such it has to be managed — it is not a "nice-to-have" element or something that occurs on its own. ●

Driving Success: How You Innovate Determines What You Innovate

For any organization, innovation represents not only the opportunity to grow and survive but also the opportunity to significantly influence the direction of the industry.

Innovation at Apple

Apple Computers took the industry by surprise when it launched iTunes and iPod, but not so much because these were innovations that nobody had ever thought of before in the PC arena. Instead, it was the strategy of combining technology change and business model change into a one-two innovation punch. And the iTunes/iPod combination is only starting to generate new concepts. One of the latest is an iPod special edition with U2 (the famous rock band), which opens up rich partnership opportunities with content providers. Apple has put its mark again on the direction of the PC industry.

As innovation leaders like Apple, Toyota, Dell, Nucor Steel, Sony and others have shown, making important changes to key parts of the dominant business model or the essential technology can redirect the competitive vectors of an entire industry. Innovation provides the opportunity for a company to put its mark on the evolution of business. By setting the rules of the game in their industries, these companies have taken a leadership position and play the game that favors them most.

How to Make Innovation Work

A fundamental tenet of innovation says *how* you innovate determines *what* you innovate. In other words, the results of innovation are not a matter of luck. Alternatively, innovation is not a commodity system that you plug into to get what you need — such as the electricity grid.

The elements of innovation: leadership, strategy, processes, resources, performance metrics, measurement and incentive rewards and how they are arranged — organizational structure and culture — have a huge effect on the quantity and quality of innovation that an organization achieves.



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The Rules of Innovation

The key to successful innovation, and something that requires the attention of the CEO, is a periodic health check to determine exactly what needs attention. Continually tinkering with all parts of innovation is unlikely to meet with success. To achieve results with limited time and resources requires the ability to focus on the parts of the innovation effort that need the most attention.

In companies where innovation produces best-in-class results, key success is tied to how well the CEO and the senior management team follow the Seven Innovation Rules:

1. Exert strong leadership on the innovation strategy and portfolio decisions. Clear direction from the top of the organization must permeate throughout the organization to motivate, support and reward the activities that encourage innovation as well as the innovations themselves.

2. Integrate innovation into the company's basic business mentality. Innovation must be an integral part of the way a company operates every day.

3. Align the amount and type of innovation to the company's business. Innovation *may* or *may not* be the key to success for your overall business strategy; you have to determine the types and amounts of innovation needed to support the business strategy — and more is not necessarily better.

4. Manage the natural tension between creativity and value capture. A company needs strength in both.

5. Neutralize organizational antibodies. Innovation necessitates change, and change stimulates explicit routines and cultural norms that act to block or negate change.

6. Recognize that the basic unit (or fundamental building block) of innovation is a network that includes people and knowledge, both inside and outside the organization. A successful organization excels at fusing its internal resources with selected portions of the vast resources of the world's capitalist economy.

7. Create the right metrics and rewards for innovation. People react to positive and negative stimuli, and your company's innovation is no exception. You will never achieve the level of innovation that you need if people do not have the proper rewards.

These innovation rules are interdependent: Mastering

one or two of them is a step in the right direction but won't take the organization far enough. ●

Mapping Innovation: What Is Innovation and How Do You Leverage It?

One of the most common misconceptions is that innovation is primarily, if not exclusively, about changing technology. However, innovation is not just about changing technologies.

eBay developed a new online business model for auctions using readily available, albeit fairly new, Internet technology. The retail giant Wal-Mart currently dominates its retail space and has used commercially available computer communication technologies to hyper-integrate its supply chain with suppliers, thereby creating a new business model with significant cost savings.

Combine Technology Change and Business Model Change

Successful organizations combine technology change and business model change to create innovation. In addition, to successfully integrate a robust model of innovation into the business mentality, the CEO and the leadership team must balance both the business and technology elements of innovation.

Business models describe how a company creates, sells and delivers value to its customers. The three areas where business model change can drive innovation are the value proposition, the supply chain and the target customer. These are the fundamental elements of every business strategy and the logical focal points for innovation.

Sometimes new technologies are a major part of an innovation, and they stand out and garner significant attention. Other times, the new technologies are hidden from view, noticed only by the technical people who service them. Either way, technology change can fuel innovations in three distinct ways, namely in product and service offerings, process technologies and enabling technologies.

Three Types of Innovation

Not all innovations are created equally. They do not entail the same risks or provide similar rewards. The generic types of innovation include incremental, semi-radical and radical.

Incremental innovation leads to small improvements to existing products and business processes. It can

be thought of as an exercise in problem-solving where the goal is clear but how to get there needs to be solved.

At the opposite end, radical innovation results in new products or services delivered in entirely new ways. It can be thought of as an exercise in exploration where there might be something relevant in a particular direction but what will be found is unknown.

Semi-radical innovation involves substantial change to either the business model or technology of an organization — but not to both. Often change in one dimension is linked to change in the other, although the concomitant change may not be as dramatic or disruptive. For example, semi-radical change in technology may require incremental improvement in the business model and vice versa.

Innovation Model and the Innovation Rules

Selecting and integrating the priorities for business model change and technology change and defining the balance between the three types of innovation in the portfolio are the basic responsibilities of senior management. These senior-level decisions are the basis that the organization will use to execute the strategy. They provide the context for the downstream decisions related to organizational design, the development of innovation networks, and the development and use of metrics and incentives to drive innovation. ●

Choosing Your Destiny: How to Design a Winning Innovation Strategy

One of the first rules of innovation is that you must clearly decide how your organization is going to play the innovation game. This is senior management's responsibility. There is not a menu of generic strategies from which to choose. Each company's management team has to craft its own innovation strategy, adapt to changing conditions and choose the right time to make key moves.

The innovation strategy must support the business strategy. The amount and type of innovation (radical, semi-radical and incremental) will vary depending on the strategy and the competitive environment. Like anything important, timing is everything.

It is also crucial that the people in the organization understand the innovation strategy.

Play-to-Win or Play-Not-to-Lose Strategies

There are two classes of innovation strategies: *Playing-to-Win* (PTW) and *Playing-Not-to-Lose* (PNTL).

The goal of the PTW approach is to produce significant competitive advantages that its competitors will not be able to easily match. PTW is a market-leading strategy that relies heavily on semi-radical innovation to drive transformation in the organization and create market-changing ideas and products. A PTW strategy is typical of high-technology companies. Amazon.com is a successful example of a PTW strategy.

Sometimes less-than-optimum external and internal conditions do not allow a company to adopt a PTW approach. For example, if the external competitive environment is extremely intense or uncertain, it is advisable to adopt a PNTL strategy.

PNTL is a strategy that typically includes more incremental innovation in the portfolio than a PTW strategy and aims to ensure the company can stay in the game by moving quickly, taking calculated risks — sometimes moving first or by matching or surpassing any moves by competitors.

Factors to Consider

The following internal and external factors affect the choice of the innovation strategy and the shape of the portfolio — PTW or PNTL:

- **Internal Factors.** These include technical capabilities, organizational capabilities, success of the current business model, funding and top management vision.
- **External Factors.** These include capabilities in the external network, industry structure, competition and the rate of technological change.

Updating and improving your company's innovation strategy must address these elements.

Strategy and the Innovation Rules

Defining the innovation strategy and the resulting portfolio characteristics (PTW or PNTL and the associated mix of incremental, semi-radical and radical innovations) are the first major responsibility of a company's leadership.

Senior management needs to identify its core competencies and innovate around them. ●

Organizing for Innovation: How to Structure a Company for Innovation

Organizing for innovation continues to be a challenge for many companies. It is not enough to craft a strategy or build innovation processes; you need to build and embed innovation into the overall organization. Successful innovation requires choosing, building and preparing the right organization and the right people for executing and scaling the innovation.

One of the main approaches to ensure that innovation is successful in your organization is to develop an internal marketplace where the ideas and functions of innovation can flourish in a supply-and-demand environment. In this innovation market, the true commercial value of every idea is reflected in the management attention and funding it receives. Truly valuable innovations are funded and advanced to commercial realities, no matter how threatening they may be to the existing business or how difficult they may appear.

Balancing Creativity and Value Creation

Critical to creating such a marketplace is balancing creativity and value capture so that both thrive. Ultimately, this internal marketplace for innovation and a balance of creative and value capture may be more important than the organizational design you select. An entrepreneurial drive for innovation brought about and supported by strong internal market forces can overcome many organizational barriers.

The best process for balancing creative and commercial processes includes five steps:

1. **Develop innovation platforms for the different types of innovation you want to pursue.**
2. **Create portfolios of projects in each platform.**
3. **Form internal and external partnerships and networks.**
4. **Ensure that markets for creativity and commercialization are open and transparent.**
5. **Guard against organizational antibodies that may limit or destroy your rejuvenated creative markets and processes.**

Outsourcing Innovation

Many companies are asking, “Should we outsource our innovation?” That is the wrong question. The right questions are: “In which parts of our innovation should we partner? How much should we rely on partners? And how much should we take on ourselves?”

Innovation is too important to outsource completely. Partial outsourcing, better termed *partnering*, is a solid, proven approach to enhancing innovation. Reaching outside for additional resources, ideas, expertise and different perspectives can be highly valuable when combined with the internal ability to understand and use what your partners bring.

Innovation Platforms

It is not enough to simply hire and sponsor creative individuals. To create sustained innovation excellence in your organization, it is necessary to create innovation platforms and networks of individuals within them where the selected innovative individuals can share with each other, be managed and grow.

Organization and the Innovation Rules

Partnering is a key innovation competency. Organizational issues regarding innovation always deal with the issue of what to do inside and what should be done outside.

In addition to partnering, management needs to focus its organizational improvements on creating value faster, better and cheaper than competitors. Value creation requires building networks of innovators that extend within and outside the organization. ●

Management Systems: Designing the Process of Innovation

Having examined strategy in innovation and the options for structuring your organization to best enable innovation to thrive, *systems* are the next important element to be considered. The decisions you make about strategy will guide where you focus your innovation efforts. The structure you put into place will act as a foundation for the innovation process. However, even with the proper strategy and structure in place, innovation could fail if your systems are inadequate. It is the management systems that are the mechanisms that to a great extent will make innovation happen.

Innovation systems fulfill five important roles: efficiency, communication, coordination, learning and alignment.

Different Types of Management Systems

Many different types of management systems are used in innovation — stage-gate project management, portfolio management, structured-idea management, brainstorming, project-selection processes (financial and nonfinancial), experimentation, prototyping, product and service rollout, and commercialization processes, to name a few.

Summary: MAKING INNOVATION WORK

Management systems vary among companies. There is no set of systems that will serve all companies. The processes selected should be determined by the innovation strategy and the balance of radical, semi-radical and incremental innovation in the portfolio.

Senior management should oversee the development and installation of the systems to ensure they match the company's needs and operating styles. Then they should monitor the systems' performance against the objectives.

Management Systems and the Innovation Rules

Companies need to use systems to achieve innovation. Management systems are the key to balancing the sometimes antagonistic aspects of innovation. Systems must be combined so that they can manage the dualities of:

- **Technology and business models.**
- **Radical and incremental innovation.**
- **Creativity and value capture.**
- **Networks and platforms.**

The unifying factor for systems is the innovation strategy and portfolio. The management systems a company chooses should flow directly from its choice of innovation strategy and the balance it seeks in its portfolio.

Consider, for example, how different Dell's innovation systems must be from Apple's — one focused almost exclusively on business model innovation and the other delivering a combination of technology and business model innovation. For Apple, one of the keys is to keep the technology and business model innovations in coordination. For Dell, improving the business model is the primary role of the systems and managing technology is secondary.

Seamless Blend

The management systems should also provide for parallel creativity and value capture in the organization. In particular, the systems should allow a seamless blend of idea generation, selection and execution by the network of innovators inside and outside of the company. Properly functioning systems provide active creation of innovations through ideation, selection, development of ideas, and efficient execution and commercialization by careful development of innovation prototypes and of commercially viable changes to the business model or technology. ●

Illuminating the Pathway: How to Measure Innovation

A fundamental rule of innovation is that linking strategy to innovation measurement with a few sharp metrics

provides a clear picture of performance.

Measurement is one of the most critical elements of success in innovation. When measurement systems are not aligned with the strategy and not tailored to the portfolio's mix of incremental, semi-radical and radical innovation, managers lose a key source of information. That translates into lower performance and decreased payoffs from innovation investments.

Three Roles of a Measurement System

Management systems are managerial facilitators; they are not always solutions. They fill three roles, as follows:

- **Plan: Define and communicate strategy.** Make assumptions about the sources of value explicit and clear, select the intended strategy and clarify expectations about strategy throughout the organization.
- **Monitor.** Track the execution of innovation efforts to assess changes in the environment; intervene only if necessary and evaluate performance.
- **Learn: Identify new opportunities.** Learn about new solutions to achieve performance goals, new business or technology opportunities.

Measurement and the Innovation Rules

Managing and measuring go hand in hand. Thomas Edison managed his research team by measuring the number of innovations they developed every week. He

How to Design and Implement Innovation Measurement Systems

There are several critical things to do when you design and implement innovation measurement systems:

- **Directly link the innovation measures to the innovation strategy and the innovation business model.**
- **Don't be rigid; build in enough variability to allow valuable measurement.**
- **Know the specific purpose of each type of measurement system; trying to achieve too many objectives will get you nowhere.** Dissect measurement systems to ensure that they are providing the right mix of planning, monitoring and learning.
- **Keep it simple; too many measures can be more of a distraction than a help.**
- **Stay in charge.** Be aware of the limitations of measurement systems. They enhance but do not replace good management.

Measurement is one of the most significant factors in successful innovation. Ironically, in many organizations, it is one of the least attended to.

set the innovation target at one small innovation per week and a big one every six months.

While Edison's measures seem overly aggressive and a little simplistic, he was on the right track. Managers and teams need a small number of straight-forward, effective measurements to guide and drive successful innovation. ●

Rewarding Innovation: How to Design Incentives to Support Innovation

Incentives and rewards are some of the most powerful management tools available.

People engage in an activity because of:

- The expected incentives associated with the activity.
- Their passion about the activity.
- Trust that they will be appropriately recognized.
- A vision that provides a clear sense of purpose.

Designing adequate reward systems for innovation needs to take into account these four elements.

Incentives and Recognition

Incentives are designed before an innovation effort starts, and they link performance measures and rewards.

In contrast, *recognition* is a reward that occurs after the outcomes of the project are available, even if there was no prior contract in place linking performance to rewards. Recognition rewards are based on subjective assessments of the value generated.

A Framework for Incentive Systems' Design

An incentive system should reinforce a company's innovation strategy, whether it is Play-to-Win or Play-Not-to-Lose. It is vital to design incentives so that they motivate people to work together to get where the company wants to go. Nikon, the Japanese camera manufacturer, defines very clear goals for the teams designing the cameras for the upcoming season. The goals specify the release date, product size, image quality and, most importantly, cost. Nikon uses target cost goals and incentives to ensure the profitability of the product.

Different projects need their own distinct goals. Once goals have been set, team and individual incentive contracts are defined to establish the formula link between performance and rewards. The incentive contract can be based on a formula that links performance against goals and prescribes payoffs.

The final step in the design of incentive systems is to define the actual rewards. They can include bonuses,

prizes, stock options and promotions, to mention a few. Each has advantages and limitations, and there are no hard and fast rules about which to use when. Management needs to ensure that they have been combined optimally.

Incentives and Rewards, and the Innovation Rules

Incentives provide a major impetus for behavior change. Without measures and incentives, organizational antibodies are released that resist innovation and block organizational change. Incentives can also cement in place beneficial behavior, creating a solid foundation for innovation. ●

Learning Innovation: How Do Organizations Become Better at Innovating?

In fast-changing environments, the ability to learn faster, better and more cheaply than your competitors could mean the difference between retaining market leadership and barely surviving.

The key to learning is not to avoid making mistakes but to learn from them. Microsoft has made learning from mistakes a virtue. Version 1.0 of its products is "good enough," but the company improves the product relentlessly until it dominates the market. It does not have to wait to have the "best" product and knows that to improve the product it needs to listen and see how the product is used.

Enabling Systems

The key to organizational learning is to have systems in place that enable people to learn better, faster and with less associated expense.

Organizational learning and changing go hand in hand. Because innovation is all about change — incremental, semi-radical and radical change — learning is an intrinsic part of innovation. Properly conceived and executed, organizational learning can unleash powerful forces of creativity and the development of processes to focus them into successful commercial realities.

Learning and the Innovation Rules

In a healthy innovative company, leadership supports learning and puts in place the systems for it to happen. This includes quick-and-dirty diagnostics that are run to provide critical insights into problems and opportunities, as well as more complex learning systems that operate continually to provide feedback and guidance, such as planning tools. Driving innovation into the business mentality requires learning and change.

Summary: MAKING INNOVATION WORK

Innovation learning changes over time, as the business and industry evolve from an initial technological focus for innovation to a mature stage where efficiency is the focus of innovation. However, the importance of learning does not change — it stays a high priority throughout an organization's involvement with innovation. ●

Cultivating Innovation: How to Design a Winning Culture

Layered on top and spread throughout the organization, a company's systems and processes are a network of social interactions — the organizational culture. Culture, comprised of unwritten rules, shared beliefs and mental models of the people, affects the effectiveness of the innovation tools.

The mightiest company in the computer industry, IBM, nearly disappeared in the early 1990s. The company's culture prized homogeneity and conformance, and the company could not deal with the rate of change going on around it. Only a risky and forceful change driven by a new external CEO put IBM back on the success track.

Culture is not static; it continually evolves. New systems and processes, new symbols, and organizational values can be designed to evolve company culture.

The innovation culture provides the business mentality for innovation. That is the reason so many attempts to improve innovation focus on culture; it is the cross-cutting element that threads its way across all of the innovation rules. ●

Applying the Innovation Rules to Your Organization

The lesson from the most innovative companies is that leadership — particularly the CEO's leadership — is the crucial difference in creating and sustaining successful innovation. Marc Benioff, chairman and CEO of Salesforce.com, said that it is the CEO's role to lead the company to develop new models — business, technology and leadership models — that will drive innovation to fuel growth and profitability. He has used this approach to lead Salesforce.com to quickly become an innovative leader in the rough-and-tumble competition of the software industry.

There are three initial activities that the leadership team should undertake to set the context for any change to innovation:

- Leadership must define the innovation strategy and link it to the business strategy. The leadership team

should design the innovation portfolios and identify the role of business models and technology change to lead to truly significant value creation.

- Innovation must be aligned with the company business strategy, including selection of the innovation strategy. Here again, the leadership team plays a pivotal role.

- Leadership must define who will benefit from improved innovations. It is leadership's responsibility to make it very clear to the team who are the targets for value creation from innovation. Otherwise, the company will not be aligned.

Diagnostics and Action

After these three initial steps, the leadership team should assess the company's innovation capabilities and its current situation.

Before launching an initiative to improve innovation by using preselected tools, it is important to conduct a diagnostic assessment of the innovation processes to assess the effectiveness of the key elements that maintain innovation in the business mentality: the company's understanding of the strategy, process and organizational structures that support innovation.

The P&G senior management team launched a diagnostic before establishing its plans to change and improve innovation in the company. This type of diagnostic provides leadership with fresh understanding of the current state of the components of innovation, gaps in actual versus desired performance, and priority areas for change.

Generating Innovation Value

Every senior management team knows the drill: Define a goal, identify the problem areas that limit attaining the goal, understand their root causes, develop a plan, send the signal to the company that this is important and then work out the millions of little details that comprise execution. Innovation is the same.

There is no silver bullet for innovation, no one formula or structure for innovation that will work for every organization. The Seven Innovation Rules provide the basis for executing improved innovation that creates value and growth. ●

RECOMMENDED READING LIST

If you liked *Making Innovation Work*, you'll also like:

1. ***The Ten Faces of Innovation* by Tom Kelley with Jonathan Littman.** The authors show how a culture of continuous innovation and renewal can be nurtured and sustained.
2. ***Break from the Pack* by Oren Harari.** Harari explains how to break from the pack by resisting the traditional compulsions that keep you mired down.
3. ***Corporate Agility* by Charles E. Grantham, James P. Ware and Cory Williamson.** The Authors provide the blueprint to allow for the understanding of the evolving work force, the inception of new technologies and the reexamination of workplace structure.