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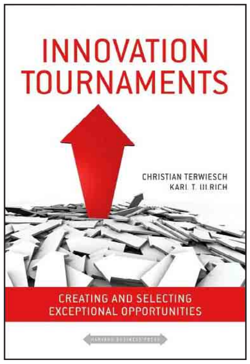

Innovation Tournaments

Creating and Selecting Exceptional Opportunities

by Christian Terwiesch and Karl T. Ulrich
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304 pages

Focus

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Take-Aways

- Innovation is not a random, spontaneous event as many people believe. Instead, innovation is something you can manage and make steadily more productive.
- An innovation is any bridge that you find or create between needs and a solution.
- To innovate better, produce more ideas that are more varied.
- To sort innovative possibilities, use innovation tournaments.
- Innovating regularly requires setting up an appropriate organizational culture.
- Generate innovations that match your strategy and market position.
- The mesh between your company’s strategy and the nature of your industry should determine how you generate, sort and develop innovations.
- Finding and developing the best innovations isn’t enough. You must build an innovation portfolio based on how innovations work together for your market.
- To maximize the benefit of your organization’s innovations, evaluate when they are likely to mature.
- Technologies and innovations follow a standard life cycle. Recognizing where you are in the cycle is essential to successful innovation.

Rating (10 is best)

Overall	Applicability	Innovation	Style
8	9	8	8

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Relevance

What You Will Learn

In this Abstract, you will learn: 1) What innovation tournaments are; 2) How to plan for innovation; and 3) How to generate and evaluate innovations.

Recommendation

This is one of the better recent books on innovation, although it has a slightly misleading title. Yes, authors Christian Terwiesch and Karl T. Ulrich define and discuss innovation tournaments and their possible role in making organizations more successful at innovating. But the title is too limiting; innovation tournaments are really only a portion of what it offers. In addition to being written in an easy, familiar style and being full of examples and illustrations, the book is rich with tips, models and guidelines to help readers navigate all stages of the innovation process. Terwiesch and Ulrich candidly discuss the necessity of failure and the costs of developing innovations, but they're also realistic when they describe the benefits. *getAbstract* recommends their book to managers who are responsible for evaluating ideas and fostering innovation.

Abstract

Innovation and Innovation Tournaments

"An opportunity is an innovation in embryonic form, a newly sensed need, a newly discovered technology, or a rough match between a need and a possible solution."

In recent years, the firms with the most explosive growth have been the most innovative, but no clear correlation has emerged between investment in research and successful innovation. People often see innovation as a mysterious, unpredictable thing: a sudden flash of inspiration that hits and – bam! – you've got a new product. That does happen; insight can arrive in surprising bursts. However, you also can approach innovation as a process and markedly increase your likelihood of success by addressing it methodically. To increase the quality of your results, you can improve the "average quality" of your proposed innovations, try a greater number of possibilities or consider more varied potential innovations.

"At the most basic level, an innovation tournament is a competition among opportunities, embodying the Darwinian principle of the survival of the fittest."

An innovation creates a fresh "match between a need and a solution" – and good innovations also create new value. To avoid spending too much time on "marginal opportunities" that will never produce substantial returns, use "innovation tournaments" to decide which ideas to investigate. These competitions identify winning innovations through a Darwinian "survival of the fittest" process. Merck's selection procedure for its cholesterol drug Zocor offers one model of an innovation tournament. Merck scientists looked at some 10,000 chemical compounds, lab-tested more than a dozen, and then selected a few to test on people. But you don't have to be producing pills to understand innovation tournaments. The popular television show *American Idol* works pretty much the same way: a process of elimination based on performance and audience appeal.

Innovation tournaments can be "closed" or "open," so anyone can take part. Your firm can use a "pure cascade" model, where judges compare potential innovations and the winners move ahead, or innovation tournaments can be "iterative," where rejected options still get re-examined and retooled. You can use one round of elimination, like the New York Marathon, or several, and evaluate choices with either "an absolute standard," where you judge proposals against a fixed benchmark, or a "relative standard," using

"Most organizations generate about half of the opportunities in their innovation tournaments internally through the creative efforts of individuals and teams."

"Opportunities not only vary widely in quality but also vary in the extent to which they support your firm's strategic direction."

"Managers focus too much of their attention on marginal opportunities and aim most of their sophisticated analytical tools at discerning subtleties in these opportunities."

"Considering each opportunity independently and simply selecting the most valuable ones fails because of interdependencies among them. Portfolio management…is about understanding interdependencies."

comparisons. Innovation tournaments can be wasteful in comparison with pure scientific research. However, in areas where public opinion matters, you may not be able to define the selection criteria in advance, as the scientific method demands.

Generating Innovation Possibilities

Most companies produce about half of their innovation possibilities internally. However, not everyone is good at coming up with new ideas, so try these tactics to boost innovation:

- **"Alternative approaches"** – Pay attention to what other firms do well as they identify consumer needs and generate innovative products to fill them. Create parallel items.
- **"Follow a personal passion"** – Ask your people what they care about deeply. Can you fulfill currently unmet needs related to those passions?
- **"Annoyance-driven innovation"** – Something that annoys you is a sign of an unmet opportunity. Find out what frustrates your customers. Now solve that problem.
- **"Decommoditize a commodity"** – Identify something that is everywhere and cheap, and that people take for granted. Can you create a high-end version of it? Think Starbucks and coffee. Can you go in the other direction and "drive an innovation down market?" What products are available only to the luxury buyer? Can you produce a version for the mass market?
- **"Trend-driven innovation"** – Trends move through society. When you notice one, like green products or second-language services, that's an opportunity.
- **"Attribute-based innovation"** – Identify your product's traits and try modifications. Can you eliminate an add-on to change its emphasis or produce a cheaper product?
- **"Functional decomposition"** – Look at your business model and see if you can dissect, improve or change any of its components. Each one is an innovation opportunity.

Sorting Possibilities

Some countries with national sports programs examine millions of school children for their athletic ability, and select a few with the greatest potential to train for the Olympics and other competitions. Likewise, once you open the floodgates to innovation, you'll have to consider countless possibilities and decide which ones to develop. You need a quick screening process that is "efficient" and "accurate," two qualities that may pull in opposite directions: Finding the best solution may require looking beyond the most obvious ideas, although this process may seem inefficient. To balance speed and accuracy, use at least three rounds of evaluation. Keep the first round wide open, and consider doing it online. As you evaluate innovations, cluster and compare similar ideas.

For efficiency, give each innovator one page, maximum, to describe a proposed innovation, then rapidly rate all the concepts you've received on a simple numerical scale. Admit the best ones into the second stage, an "innovation workshop." Give innovators two minutes each to present their ideas using a single visual aid. Don't entertain questions or allow discussion; just have your panel vote, electronically or by paper ballot. As you tally the votes and move the winners to the next round, pay special attention to proposals that earn wide enthusiasm. Look for patterns that could have distorted the voting. For example, several very similar possibilities might have divided votes in that area. In the third – and later – rounds, use more rigorous, specific, and, if possible, objective selection criteria. If you can't create objective criteria, bring in experts who know the field well. Evaluators at 3M use criteria called "Real-Win-Worth-It" to determine if the market opening or opportunity is "real," if 3M can "win" with it, and if the idea is "worth it financially."

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Innovation and Your Corporate Strategy

You can evaluate innovations based on what fits your strategy, or innovations and opportunities can guide your strategy. Generating innovations by encouraging or "pushing" new ideas is an attractive change for many companies. However, mature firms may want to "pull" innovative possibilities from their existing strategic base.

"Start your innovation strategy audit by examining your product and service offerings through your customers' eyes."

To focus your innovation efforts on needs specific to your strategy and market, conduct an "innovation strategy audit." Review your overall strategy and current situation. What do your customers need that they aren't getting? For new perspectives, analyze your products' specific traits. Ask customers what they need, but don't assume they have all the answers. To see how they really employ your product, match their reported use patterns to its main abilities and capacity. You want to produce something "valuable," "rare," "not easily imitated" and "nonsubstitutable." Examine your industry's position in the "technology life cycle." No single design dominates the "embryonic phase" of a technology, so you can compete by producing alternative designs. In a market with a dominant design, offer superior quality. In a mature market, compete on cost and efficiency. In a declining market, provide "last-gasp applications."

"When another firm innovates successfully and brings a new product or service to market, it in effect publishes the location of a gold mine."

Beyond the Time Horizon

As you find innovations that best fit your corporate strategy, develop an array of possibilities for various time horizons. Divide your predictions regarding how innovations will fare in the market. On the near horizon, where you are essentially making incremental changes, use simple financial modeling to predict sales with fair accuracy. On the intermediate horizon, where you know less and face greater risks, take a step-by-step evaluative approach. Identify all the events that could influence the outcome of your innovation. Then, estimate the likelihood of each event and the payoff that would result. To anchor these projections, refer to similar past events, ask experts and articulate the specific criteria that would lead you to a meaningful evaluation of each possibility.

"The probability of success for a far-horizon innovation is quite low; when you're operating at innovation's frontiers, big risks will always dog you."

Trying to articulate the risks or uncertainties of innovations on the distant time horizon is challenging. Take, for example, the Virgin Group's consideration of commercial space travel. "It does not even know what it does not know." All its managers can do is reduce uncertainty wherever possible. But few such faraway possibilities work commercially. Many firms remain quite profitable by focusing only on "near-horizon strategies." In fact, truly speculative innovations may be beyond your firm's realistic "innovation frontier." Resist being pulled along by the rush to explore a new technology. "First-mover advantages" are often short-lived. Often, those who initially bring a technology to market make less profit from it than those who follow and do a better job of matching the technology to consumer needs. To use a near-horizon strategy, develop your firm's "absorptive capacity" so it can copy (or adapt) and sell technologies developed by others.

"The historical evidence is sobering enough that we believe the right strategy for some firms may be to shun far-horizon opportunities."

To innovate regularly, organize your company to fit your marketplace, integrating each phase of your innovation plan into your understanding of the buyer. Innovation timelines must fit market life cycles. If you decide to explore a speculative innovation, do not break the "what-not-how principle": that is, don't look at how you can do something, but rather look first at what need customers have that your innovation will fulfill. Consumers must be able to get data about it readily, try it cheaply and use it easily.

Don't be overly optimistic about how fast a new innovation will spread. To percolate quickly, innovations must be much better than current choices and yet compatible with existing situations in their field. When you select innovations to pursue, don't just follow the cluster that appears most profitable. Instead, consider various innovations'

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"interdependencies." How will they work with or against each other? Multiple innovations in one arena can lead to "market cannibalization," wherein profits are divided, not multiplied. Just imagine trying to sell four new weight-loss drugs at once. Some innovations are so speculative that they may pay off well, but don't bet your company on them because they also may never pay. Instead, balance them with more conservative innovations. Bringing different innovations to market at intervals is difficult, because that makes your income rise and fall. Pace your innovations so they don't use the same resources at the same time.

"An action as simple as placing a nice cappuccino machine in a common area can stimulate informal interactions."

Your Innovation Culture

How do you evaluate your ideas? The New York Philharmonic holds auditions, but it only considers musicians with appropriate backgrounds and it only has one judge, "Maestro Lorin Maazel, the music director. By contrast, YouTube lets anyone post videos, which the public evaluates and sorts. Will you consider only internal innovations or include externally generated ones? Who will decide which innovations to develop? Base your decision on your market knowledge. If you're in a mature field, where the principal concepts are already familiar and the costs of experimentation are high (as they are at Boeing), using internal research teams to generate and evaluate innovations will be more efficient.

"For Warner Brothers, or any studio, phenomenal successes such as Harry Potter are the exception. But for a successful innovator, exceptions are the goal."

Once you've generated innovations, you have to decide how to distribute them inside your organization. Firms like McDonald's use a "core to edges" approach: innovations are developed centrally and then distributed through the network. By contrast, "multinational food companies" and similar organizations that serve national or regional markets, may allow each outpost to innovate independently. Still others, such as Deloitte, a major accounting firm, welcome innovation from their outposts, and then choose concepts for the administrative core to replicate in other outlying units. No matter what approach you use, design your incentives to reward the sort of innovative behavior you want to align with shared corporate values supporting innovation. Do not just accept failure; use it as part of your culture. Recognize innovators and those who champion innovation.

When you hold innovation tournaments, keep your processes transparent and uniform. Set up the physical space so people from all units can chat easily to promote interdisciplinary idea sharing. Organizations that set out to innovate often pass through similar levels of development:

"Fail early, fail often, and fail inexpensively."

1. **"Reactive"** – The external world changes and the organization reacts. Internal innovators have to work against company structures to realize their visions.
2. **"Structured"** – Innovation becomes more intrinsic. Leaders make it a priority and put formal processes in place to encourage it.
3. **"In control"** – Corporate leaders manage innovation as a matter of policy and align innovation decisions with long-term strategy.
4. **"Internalized"** – Managers completely understand the importance of innovation and know how to manage it.
5. **"Continuously improving"** – The culture steadily fosters new and better innovations.

About the Authors

Wharton School of Business professors **Christian Terwiesch,** who teaches Operations and Information Management, and **Karl T. Ulrich**, who is the CIBC Professor of Entrepreneurship and eCommerce, have written or cowritten numerous academic articles and several books.

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