# nakedinnovation

uncovering a shared approach for creating value

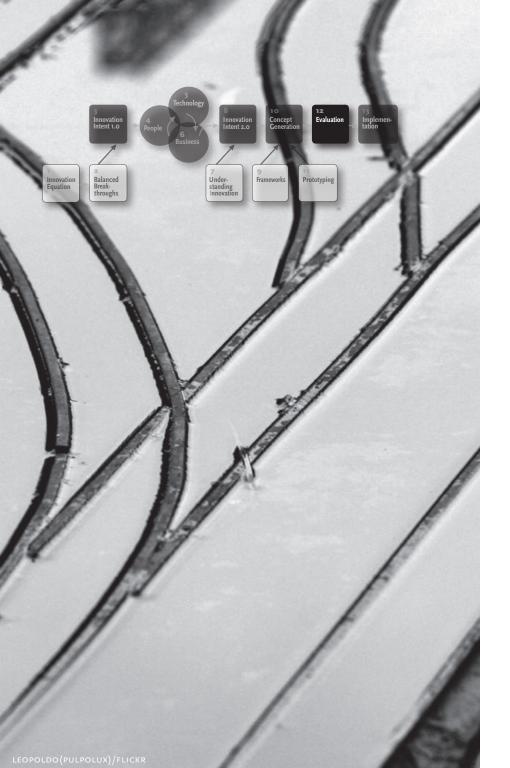
Zachary Jean Paradis David McGaw

IIT Institute of Design

This is a chapter from *Naked Innovation: Uncovering a Shared Approach for Creating Value*, version 0.9.1. It's a public beta, so you should expect to find things that need improving. With your help, the forthcoming second edition of the book will be even better. Permission is granted to download and share this chapter for the purposes of review and collaborative critique. Any redistribution must credit the authors and NakedInnovation.com. This chapter and the book are both ©2007 Zachary Jean Paradis and David McGaw.

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# **Evaluation**Decision Making

People tend to make decisions they feel comfortable making, not the ones critical to project success and timeliness.

JEREMY ALEXIS, IIT INSTITUTE OF DESIGN

Concepts are where the rubber of invention meets the road and all the good insights you've found are turned into solutions. Unfortunately, just like in our own lives we always have more good ideas of what we would like to do than we can possibly support with time, money, and capabilities. Zach has been working on producing a designer deck of playing cards for years but has never gotten around to finishing it. David has done a significant number of choral music performances but doesn't foresee having time in the near future to continue. We both think we have a great idea for a screenplay, but our effort



## A GENERIC STAGE/GATE PROCESS

is probably better spent elsewhere, on topics we know at least something about—for example, this book.

Our firms or clients are no different. They have to do what will generate the most value for their customers and their shareholders, sometime in the short run and sometime in the long. Good strategy for an organization or a development effort accounts not only for what should be done, but also what should not.

Method and tools for evaluation in development and going to market—the "how to make" phase—are well instituted within companies, typically in the form of a standardized Stage/ Gate process shown above. In contrast, those enabling good decisions related to resource allocation—the "What to Make" phase—are woefully underdeveloped. This lack of rigor around evaluation early in the idea process is well illustrated when walking through the aisles of many retailers today. A study in the *McKinsey Quarterly* notes that less than 7% of all new product introductions in the consumer packaged goods industry were "innovative" between 2000 to 2004. Breakthrough innovations accounted for nearly 26% of sales within the categories studied while line extensions were a measly 1%. Stage/Gate is

fantastic for implementing great ideas but, unfortunately, it is equally as good at implementing bad ones. The result is a lot of products get put into the market that will never significantly contribute to a firm's profitability. That's how you end up with Crystal Pepsi.

What we're talking about more specifically is decision making at the "fuzzy front end"—concept evaluation. Doing this right is essential because so much of an offering's success or failure is embodied in the idea itself. This may sound like a controversial statement to those who believe work is all about execution, but it is grounded in the Balanced Breakthroughs model. Furthermore, research such as that in the *McKinsey Quarterly* article cited above shows the significant financial return of breakthrough innovations, as opposed to simple product line extensions. So, when making evaluations on the offerings we create or have to fund, we should take these into account. The overall quality of the "idea" really has to fit the context or it is going to have a very low chance of returning on its own investment.

In companies today, decisions in this fuzzy front end are frequently made through unstructured discussion and consensus building among team members. The most casual ones include the phrases "I think we should do this one," followed by, "Sounds good." Design firms some times use "voting dots" or other ad hoc tools in an attempt to add a bit more rigor to the process. Large companies like to use Discount Cash Flow (DCF) analysis to make "go or no-go" decisions (see the box on the next page). Regardless of the process used, there is a significant emphasis on intuition. Organizational influence is always a big factor.

People like to make decisions about known entities, quantities, and channels. Unfortunately, these are not the projects that generally generate the most value for an organization.

<sup>&</sup>lt;sup>1</sup> Erik A. Roth and Kevin D. Sneader, "Reinventing Innovation at Consumer Goods Companies," *McKinsey Quarterly*, November 2006, online at http://www.mckinseyquarterly.com/article\_page.aspx?ar=1870&L2=21&L3=35

This leads to teams being afraid to kill well-known ideas or projects at the expense of less well-known ideas that could provide higher value ones. It leads to a lot of false positives (projects given a go that add no value); and a lot of false negatives (projects set aside that could have been spectacular successes).

We wish we could give you a single, perfect evaluation tool that would always help avoid these problems. Companies often go to great lengths to develop an internal formula that will take subjectivity out of the process. But that can be even worse—using a one evaluation method exclusively produces disappointing results in the long run, because different types of

# **The Dirty Secret of Discount Cash Flow**

Discount Cash Flow (DCF) analysis is an exceptional tool for evaluating how very well known products will do in known channels if released in the near future, but it isn't foolproof. In fact, the dirty secret of DCF is that the numbers can really be anything the business or financial analyst putting them together wants them to be. If that person believes in an idea or likes the individual leading the project, projections can look good. If they have issues with one or the other, the "numbers" can project a much worse story—regardless of reality.

The bottom line is that psychology and motivations play into DCF regardless of how straight forward and "analytical" the final numbers look. Individuals putting together this information have a tremendous amount of power and their power becomes much more pronounced when DCF is used for evaluating possible offering ideas several years (or more) in advance. At this point, it is more speculation than analysis.

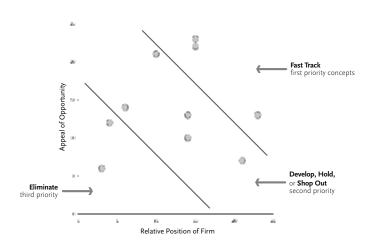
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5	Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 7	Concept 8	Concept 9	Concept 10	
Appeal of Opportunity											
Fit with target customer need	5	- 3	2	- 5	4	1	- 3	- 5	- 3	4	
Projected market size + growth	5 3 2 2	2	2	5 4	4	1	3	5	3 3 3 0	2	
Projected market profitability	2	1	1	4	5	2	0	- 4	3	2	
1 Strength of existing competitors	2	1	5	4 3	5	2	0 4 2	4	3	4	
2 Platform opportunity	1	0	4	3	5	1	2	- 4	0	1	
1											
4 Total value (Y axis)	13	7	14	21	23	6	10	22	12	13	
5											
6											
7 Relative Position of Firm											
8 Fit with brand	2	5	- 1	1	- 4	0	- 1	3	1	4	
9 Fit with current capabilities	2 4	5 4	i	2	3	1	- 1	3	0	4	
0 Fit with overall strategy	4			2 2	3	1	5	3 2	1	5	
1 Relative strength compared to competitors	3	4	2	2	3 3	0	2	5	1	5	
2 Fit with channel/partnerships	3	3	1	3	2	1	5	2	1	5	
3											
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#### A DECISION MATRIX

information vary in importance depending on the type of concept being evaluated. Too often we compare apples to oranges because we're using the same evaluation method regardless of the nature of the idea, or where we are in a development project. So, let's consider several decision making tools, and see how they might fit in an overall innovation process.

# **The Decision Matrix: Selecting Good Concepts**

One of most useful evaluation tool following concept generation is the *Decision Matrix*. There are a few different specific forms worth considering, but the basic idea in every case is to rate each concept against a suite of criteria. These concepts are then sorted to show which ones are of highest total "value" and maybe plotted on a position map. While the level of rigor used can vary widely, we generally build them quickly in Excel using a team's collective judgment to score. Completing a decision matrix is especially worthwhile just after a big workshop or



#### PRIORITIZING CONCEPTS BY BUSINESS AND USER VALUE

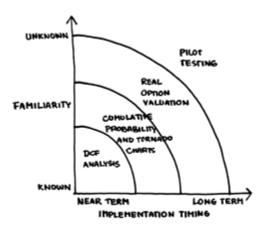
other idea generation activity. Managers and team members working on innovation projects can feel overwhelmed by the many concepts created during exploration. Matrices allow teams to quickly focus on high value opportunities. So which criteria should be used and how should they be scored? Criteria generally fall into three distinct categories: value to potential customers, ease of implementation, and economic value—broadly mapping to the Balanced Breakthroughs model.

On the previous page, you'll see a pre-defined matrix, created in Excel, that works well as a starting point for concept scoring. Success factors from the Balanced Breakthroughs model divide into two main aspects of any development: *Appeal of Opportunity* versus the *Relative Position of Firm*. A more customized matrix can include the Design Principles you framed after your research, helping you measure how well each concept accomplishes the requirements you already established. Quickly score each concept (that is, over an afternoon, not a week) and then plot them on a position map (shown above). This map will

visually compare the strength of various concepts, and be your guide in determining which ones should have priority.

Bucket concepts into one of the following categories (well-defined by Jeremy Alexis). Those with highest priority need to be put on the Fast Track to development. These concepts are a quick win or address a closing window of opportunity. They should be brought to market as quickly as possible. Those with secondary priority fall into one of three categories: Develop, Hold, or Shop Out. The Develop concepts are promising, but require additional research, design, and engineering before it can be validated or implemented. Those on Hold are, for the moment, probably ahead of their time and will require markets or technologies to mature for them to be valid. Shop Out concepts would be difficult for your client or firm to execute but may be valuable to partners or others in your ecosystem. These ideas can be licensed or given away for free to help build partnerships. Finally, we know that some of the ideas we generate aren't really going to fit our firm or potential

#### DECISION-MAKING TOOLS FOR GOOD CONCEPTS



customer's needs—these should be thrown in to the **Eliminate** bucket.

### **Making Decisions Between Good Concepts**

After you've selected the best ideas with a decision matrix, you probably still have more concepts than your client or firm can manage to execute. Since most projects will require some form of additional investment to move forward (money, almost certainly, but also time, human resources, and working space), concepts can be examined for practicality. If the concepts will need to be implemented soon, and your company already has the capabilities required, reductive quantitative analyses like Discounted Cash Flow and Net Present Value will be applicable. On the other hand, the further from implementation and less well known an opportunity is, the more you'll need to use other evaluation methods. The model below speaks to some of the evaluation methods to consider with concepts that are further in time and capabilities from your firm's current business.

Many of the these methods, described briefly below, have been thoroughly examined in books on product and portfolio management (see the resource list at the end of this chapter). In addition, you probably have people on your team, or within your firm, who are passionate and knowledgeable about executing detailed quantitative analysis. You should engage them in a discussion of what's appropriate for your project. *Naked Innovation* seeks to provide a high-level integration of a lot of different disciplines' perspectives, rather than a detailed, exhaustive, so the following will serve as an introduction to material covered more extensively by others.

**Discount Cash Flow** (DCF) analysis determines the present value of future income by discounting it using the cost of capital. It sounds complex but the basic idea behind DCF, and a related analysis, **Net Present Value** (NPV) is that one hundred dollars

today may only be worth \$90 a year from now, because of inflation and other opportunity costs. So, when deciding what to invest in, firms must take into account—they must *discount*—their investments in some innovation project. It is not enough for a concept to just make a profit, it must profit in addition to exceeding inflation and other opportunity costs.

Where DCF and NPV are very specific with known variables and expected returns, *Cumulative Probability* and *Tornado Charts* are more appropriate to demonstrate critical uncertainties and ranges of possible outcomes. If an innovation project lead recognizes critical uncertainties, these methods provide guidance for decision-makers to determine how much should be spent to gain more information to clearly resolve issues. This is exactly what happens when we know less about some concept we are considering—there is a range of possibilities as the outcome of development.

Real Options Valuation is the notion that investments should be valued in the same way as financial options. The idea has been around for a while in academic circles but is becoming more familiar with corporate financial planners. Just as in personal financial planning, diversified innovation portfolios provide breadth of opportunity and a platform for taking calculated risks, balanced by some sure bets. Even apart from a broad portfolio of innovation concepts, when we acknowledge that potentially valuable concepts may have risks, we provide an incentive to identify the critical uncertainties and use evaluation tools like Discount Cash Flow more precisely, helping us bring the concept to market.

Sometimes there are concepts that are clearly valuable—yet so far out of a firm's capabilities or brand that it is difficult to know what to do with them. Your firm could Shop Out the idea, but it could also think about *Pilot Testing* in the form of

#### **Before You Go On...**

The three keys you should remember, for doing great evaluation and decision making, include:

- > Be *structured but fast* with your initial concept evaluations. Even with a hundred ideas it shouldn't take more than an afternoon.
- > Use *Decision Matrices* then categorize your concepts as *Fast Track, Develop, Hold, Shop Out,* or *Eliminate*.
- > Engage those passionate about quantitative analysis to consider a wider range of evaluative methods beyond Discount Cash Flow. More specifically, think about using Cumulative Probability, Real Options Valuation, and even Pilot Testing through angel investment.

#### RESOURCES FOR EVALUATION

Cooper, Robert G., Edgett, Scott J., and Kleinschmidt, Elko J. *Portfolio Management for New Products*. New York: Perseus Books Group, 2001.

Gorchels, Linda. *The Product Manager's Handbook*. New York: McGraw-Hill, 2005.