

Decision Making in the Fuzzy Front End Selecting for Newness to Drive Innovation

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Innovation is all about creating new ideas and making them real. Many good ideas die an early death because innovators focus on implementation – their ability to make an idea real – too soon in the new product development (NPD) process. Market researchers can help drive innovation by focusing exploratory research on identifying new and exciting ideas, whether they seem feasible or not.

This paper describes the relationship between the two most important criteria for idea selection in the fuzzy front end of idea development: **newness** and **feasibility**. In order to be innovative, product developers must have the courage to select new ideas early in the product development process, even ones that do not seem feasible. That is because **it is possible to take a new idea that does not seem feasible and build in feasibility**. It is not possible to take an old idea and build in newness.

A process that preserves newness while eliminating weaknesses enables marketers to take new ideas that seem difficult to implement and make them feasible. In this paper, I will touch upon an Idea Development Process that improves feasibility in new concepts.

In this paper I also suggest that an innovation pipeline should contain a portfolio of concepts that vary in their degrees of newness and feasibility. I describe the three different types of ideas that should comprise an NPD pipeline:

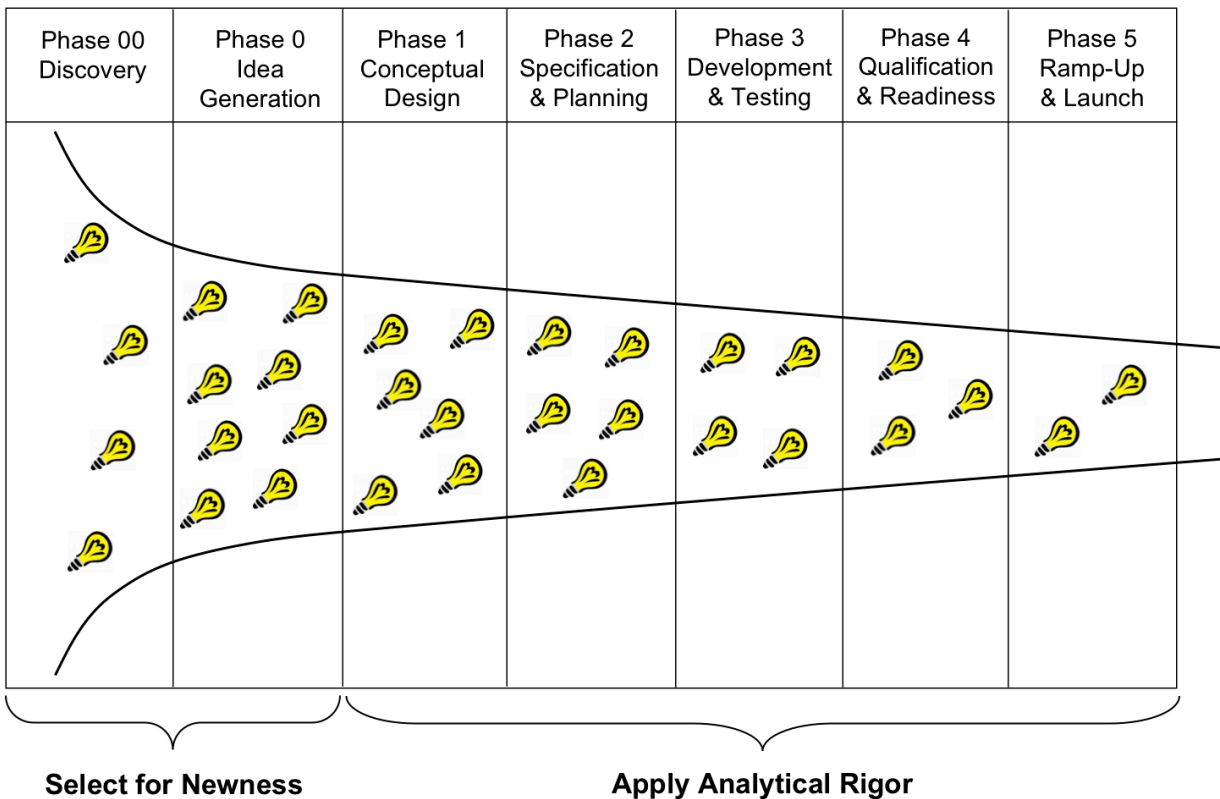
- **The No-Brainer** – Ideas that are high in newness and feasibility (Go-Gurt)
- **The Gutsy Bet** – Ideas that are high in newness but low in feasibility (iPod)
- **The Line Extension** – Ideas that are low in newness but high in feasibility (Fruit2O Plus)

Criteria for Selection at the Fuzzy Front End

Most medium and large companies use stage-gate or similar formal NPD processes. Stage-gate processes are rigorous, analytical methods that help ensure the success of new product launches. However, stage-gates and other concept vetting processes can stifle innovation when certain criteria are used to evaluate ideas too soon in the NPD process. Consider the typical concept evaluation criteria as outlined by the man who coined the term "stage-gate," Dr. Robert Cooper¹:

- Strategic Fit
- Leverages Core Competencies Product Advantage
- Technological Feasibility
- Market Attractiveness
- Risk Versus Return

While rigorous analysis in the design and development stages is critical to successful product launches, application of these criteria at the fuzzy front end of the NPD process is a mistake. During the discovery and idea generation phases, idea selection should primarily be directed by evaluation of a single criterion: **newness**. Since the entire purpose of the NPD process is to generate something new, it makes sense that newness would serve as a guiding light for making decisions. At the fuzzy front end, it is important to identify ideas with a high degree of newness because **it is possible to take a new idea and build in feasibility but it is impossible to take an old idea and make it new.**

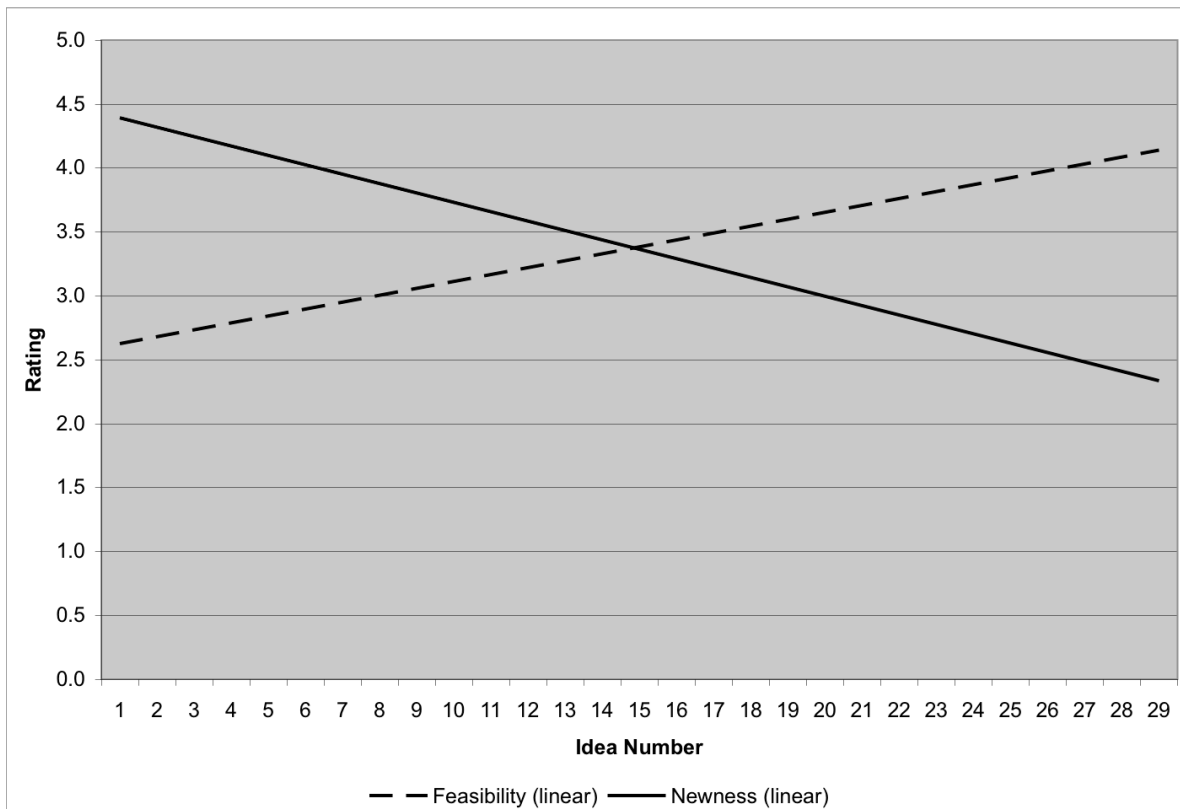


The Difficulty in Selecting for Newness

Inverse Correlation Between Newness and Feasibility

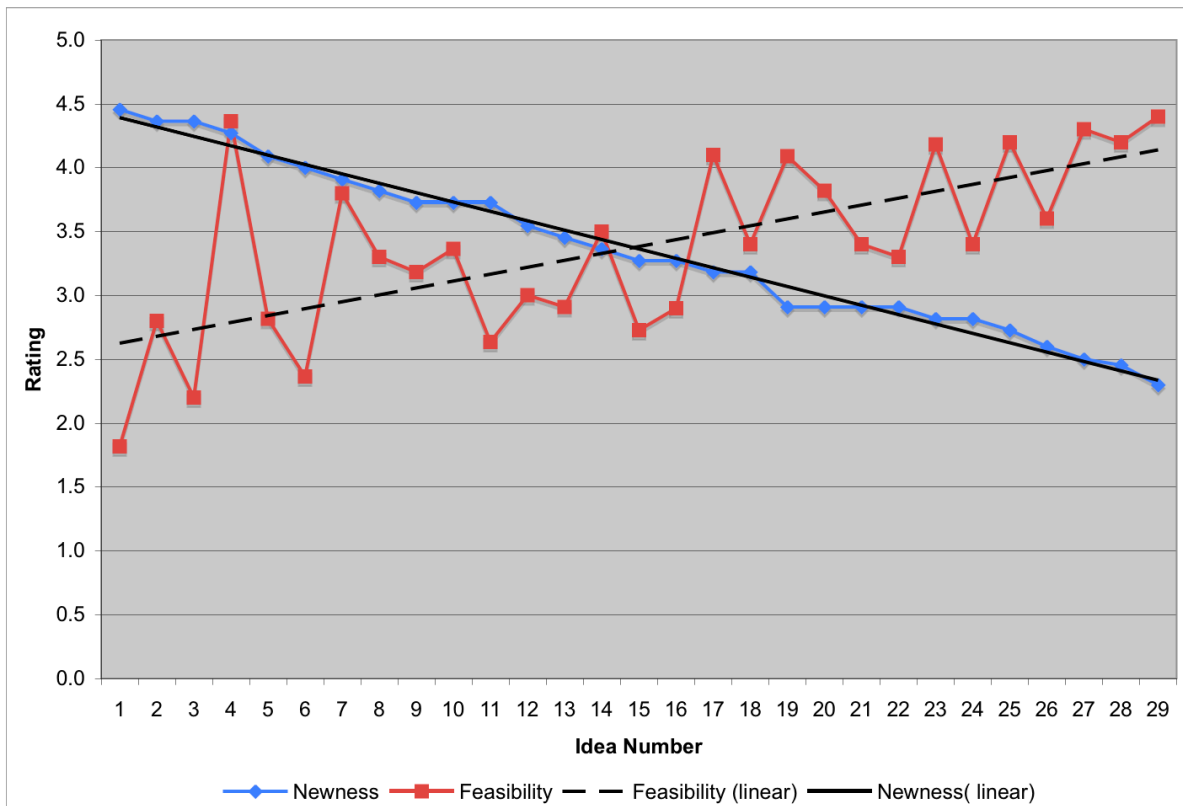
As product development teams evaluate ideas to determine which will move forward from Idea Generation to Conceptual Design, they always use criteria that can be labeled as Newness, Feasibility, and Appeal. Newness might be defined as "Uniqueness" or "Patentability" and Appeal could be labeled "Market Opportunity" or "Differentiation" but, at the end of the day, NPD selection criteria tend to fall into these three buckets. While Appeal is certainly an important criterion, it is the relationship between Newness and Feasibility that often causes good ideas to die too soon.

We often help NPD teams decide which ideas should be carried forward from Idea Generation to the Conceptual Design stage. As part of the process, teams evaluate early stage concepts for newness and feasibility (how ever they define those criteria) on a scale of 1 to 5. If we look at a series of new product ideas (represented by idea numbers 1-29 in the chart) and plot ratings of newness and feasibility, we ALWAYS find that newness is inversely related to feasibility. The newer something is, the less likely we are to understand how to implement it. In every innovation project we have run, the data have always shown this inverse relationship.



A Closer Look at the Newness/Feasibility Relationship

The data shown in the previous chart were presented as linear correlations – they are approximations that demonstrate that as newness decreases, feasibility tends to increase. The same exact data are presented below but, in this case, the actual values of newness and feasibility for each idea number are overlaid upon the linear correlations. The data are sorted by newness, with idea #1 being the most new and idea #29 the least new.



Notice that most of the ideas that are relatively low on newness (ideas 15-29) are relatively high in feasibility, and vice versa. Idea #2 has ratings we would expect for an innovative concept – very high in newness but very low in feasibility. This idea represents what I would call “The Gutsy Bet” because it is going to take some work to develop. However, there are also exceptions to the rule. In this case, ideas #4 and #7 are both high in newness AND feasibility. These ideas represent a fuzzy-front-end win-win and are “No Brainers” with respect to newness and feasibility. Finally, ideas 27-29 are not very new but are high in feasibility; if they also rate high in appeal, they could be strong candidates to move forward as “Line Extensions.”

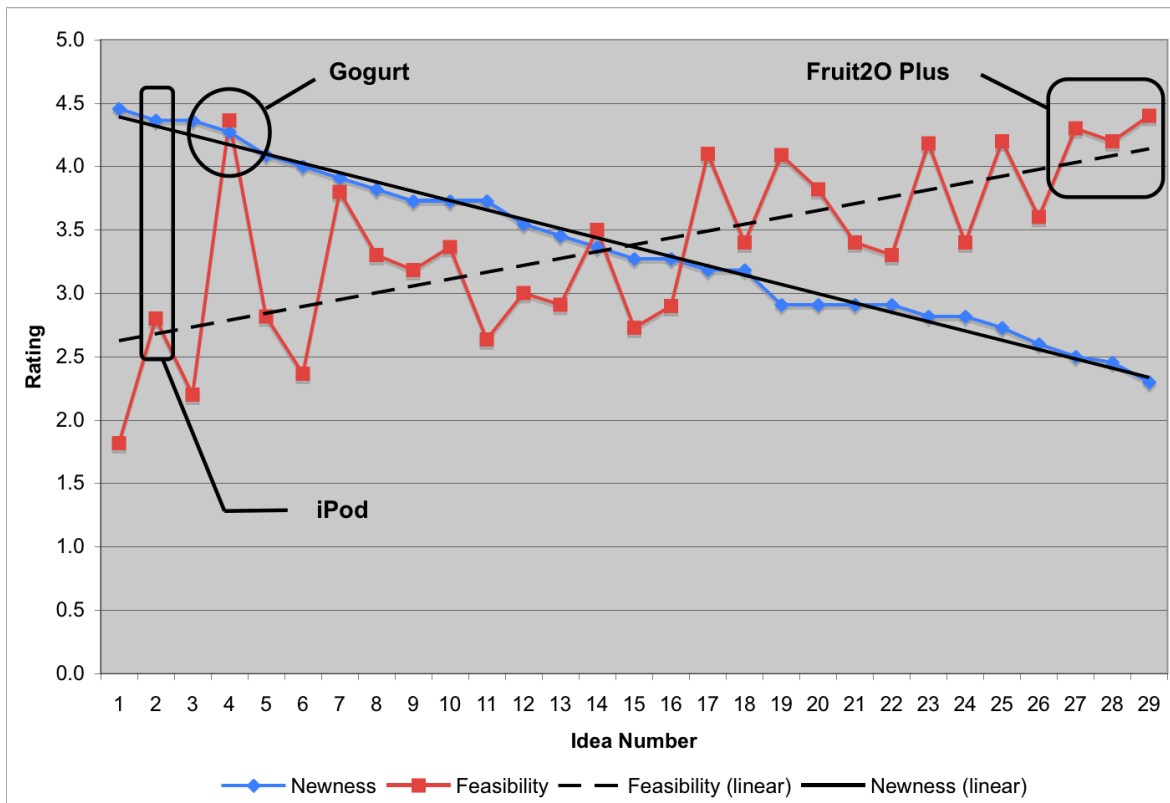
The problem for NPD teams is that it is often difficult to see how one can implement truly new ideas that are low in feasibility. The safe choices are the No Brainers and Line Extensions. To be truly innovative, an NPD team also needs to place a few Gutsy Bets. A healthy NPD pipeline should include a portfolio of Gutsy Bets, No Brainers, and Line Extensions.

The Innovation Pipeline – Mixing Degrees of Newness and Feasibility

The No Brainer – Go-Gurt. (High Newness, High Feasibility) When the NPD team at General Mills first had the idea to package yogurt in tubes for kids on the go, a huge grin must have come across their faces. Here was an idea that was very new to the world (eating yogurt without a spoon) and a proven technology that already existed – for years, children have been eating popsicles packaged in tubes. That's not to trivialize this innovation. Certainly there was a lot of work between the insight that children stopped eating yogurt right around school age and the notion to put it in tubes but, once the idea emerged, it must have seemed a No Brainer.

The Gutsy Bet – iPod. (High Newness, Low Feasibility) The idea of a hard-drive based MP3 player seemed, at first, very low in feasibility. Indeed, companies including RealNetworks and Phillips rejected the concept. Technical challenges included making it small enough, providing enough memory and battery life, and developing a user interface for the masses. But, there were also design challenges and, perhaps most of all, the challenge of building a completely new product category. Development of the first model took Apple over a year and only survived because it had the backing of Steve Jobs himself. Nearly 100 million iPods were sold in its first five years on the market.

The Line Extension –Fruit20 Plus. (Low Newness, High Feasibility) Line extensions represent, by far, the highest proportion of new product introductions. While they are poo-hooed by innovation gurus, the importance of line extensions should not be underestimated. Line extensions such as new flavors or functional additives buy manufacturers additional shelf space. New features and functions in everything from computers to cars capture consumer interest and help build market share.



The Idea Development Process in Focus Groups How Market Research Can Drive Innovation

The Stage-Gate process can kill ideas because, when it identifies flaws in a concept, its rule is to stop an idea at that gate. However, if developers focus on eliminating flaws, ideas can continue to flow through the gates. This is the simple but elegant Idea Development Process that preserves newness and builds in feasibility:

- 1) Identify a new idea
- 2) Determine what is exciting about the idea – its “plusses”
- 3) Isolate flaws in the idea – its “issues”
- 4) Problem-solve to eliminate the flaws

Whether your objective is highly exploratory or you are involved in refining a concept that is near fully baked, you can use the Idea Development Process in focus group settings to identify newness and build in feasibility. The moderator presents a concept to consumers and asks three simple questions:

- 1) What do you like about this concept?
- 2) What issues or concerns do you have related to this concept?
- 3) How might you improve this concept?

By focusing the debrief on each of these questions separately, the market researcher can identify what is new and exciting without getting bogged down in issues. Answers to the first question demonstrate what is new and exciting about a concept. The second question isolates the issues so the development team can resolve them at a later time. And, the last question can provide problem-solving ideas to overcome the issues.

One last note – I generally recommend presenting concepts in simple and unfinished form; a drawing rather than a photograph, a Styrofoam model rather than a functioning prototype. When consumers see finished ideas, they tend to view them as unchangeable and respond with “thumbs-up” or “thumbs-down” evaluations. Drawings and foam models, for example, are seen as more malleable, allowing consumers to more readily isolate plusses and concerns.

Using the Idea Development Process, researchers will always be able to identify Line Extension opportunities and seize upon the No-Brainers when they surface. With a little trust in the process, researchers should also be able to identify the Gutsy Bets when they arise and have courage to advocate pushing those ideas ahead, knowing that it is possible to “cook in” feasibility.

About the Author

Frank Hines is a management consultant with over 30 years experience in international marketing, market research, strategy, product development, and innovation. He is an experienced focus group moderator and an expert in a broad array of qualitative research approaches. He has conducted research for a wide range of world-class clients including Bacardi, Dell, IBM, John Hancock, Kraft, McNeil, Pfizer, Pitney Bowes, Reebok, and Starbucks. Frank holds a BSME from Worcester Polytechnic Institute and an MBA (Magna Cum Laude) from Babson College.