

What is Innovation?

Defining Innovation in the “Jobs-to-be-Done” Paradigm

by **Anthony W. Ulwick**

When building a competency in innovation management, an organization must first agree on what innovation is and then adopt the best innovation process to support it.

Before adopting an innovation process, an organization has to agree on the definition of innovation. In this primer, we define innovation, and also describe and discuss Strategyn’s Outcome-Driven Innovation (ODI) methodology—a proven innovation process with an 86 percent success rate. This primer is designed to help those interested in ODI understand the terminology associated with the process. We start by defining innovation, introduce other basic terms, and take you through the terms associated with key process elements including inputs to the process, discovering and analyzing unmet needs, and generating ideas. There is also an abridged glossary of terms at the end of the primer.

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The Definition of Innovation

Innovation

Since people buy products and services to get a job done, innovation is defined as the process of devising a product or service concept that helps customers get a job or jobs done better. The innovation process begins with market selection, and ends with a product or service concept that is approved for development. Ideally, only winning product concepts enter the development process. To be approved for development, a winning concept must also meet company success and societal criteria.

Idea-First Approach to Innovation

An inherently flawed approach to innovation that starts with the generation of ideas and is followed by evaluation and filtering methods that determine which ideas customers like best without ever explicitly understanding all their needs. Although this approach is popular, the chances of coming up with an idea that precisely addresses all the unmet needs of target customers is near zero. This approach is analogous to a sharpshooter trying to hit a target without knowing what the target is or a doctor prescribing a treatment without observing patient symptoms. It is a time-consuming and costly approach that may never produce a winning concept. Because it is nothing more than guesswork, it will always result in low success rates.

Needs-First Approach to Innovation

An approach to innovation in which companies first uncover all the customer's needs, then determine which are unmet, and then devise solutions to address those unmet needs. Historically, the needs-first approach to innovation has been ineffective, but the approach is not inherently flawed. The approach has been ineffective because in most companies there is no agreement on what a need is, and few companies believe all the customer's needs can be captured. They have been told for years that customers can't articulate their needs and that customers have latent needs, neither of which is true. (See "customer need".)

Outcome-Driven Innovation (ODI)

An innovation process invented by Strategyn in 1991 that has been tested and refined for over 20 years. It is an effective needs-first approach to innovation that has an 86 percent success rate.

Innovation Basics

Industry

The collective set of companies that offer solutions to help customers get a job done.

Market

In the outcome-driven paradigm, a market is defined as a group of people (job executors) and the core job or jobs they are trying to get done. This is in stark contrast to the way companies typically define a market—usually in terms of the technology, product, or solution customers use to get the job done. The outcome-driven definition is need oriented rather than solution oriented. A market is defined in this manner so that the entire job the customer is trying to get done can be studied and so that all customer needs and potential innovation opportunities will be revealed.

New or Emerging Market

A new job that a group of customers want to get done because of changes in policy or conditions, scientific discoveries, or in support of a new technology, or a job that a significant group of customers now want to get done due to a demographic trend. New or emerging markets are uncovered using qualitative methods that analyze trends and other factors.

Market Strategy

A plan that a company devises in order to achieve and maintain a unique and valued competitive position in a market.

Inputs into Innovation

Company Success Criteria

The set of financial, strategic, and other criteria that a company uses to evaluate the attractiveness of markets, product platforms, business models, and features. Typically, these criteria go undefined and are not formally agreed upon or prioritized by management. They are rarely made transparent to the organization. Because these criteria are critical inputs into the innovation process, Strategyn has defined a unique and effective set, based on over 60 interviews with executives in a wide range of industries. This universal set of criteria is useful for evaluating the attractiveness of new markets, platforms, business models, and features.

Customer

Broadly speaking, a constituent in the customer chain, for whom the company chooses to create value. Although each constituent in the customer chain may be considered a customer, the primary customer in the customer chain is always a job executor. That is the person around whom the market has been created. Other constituents in the customer chain support the job executor and are trying to execute their own unique jobs. For example, the distributor performs the job of distribution and the purchaser performs the job of acquiring the product.

Customer Chain

The group of downstream customers who manufacture, distribute, sell, or purchase a product or service as it makes its way to the person who ultimately uses the product or service to execute the job the product was intended to perform.

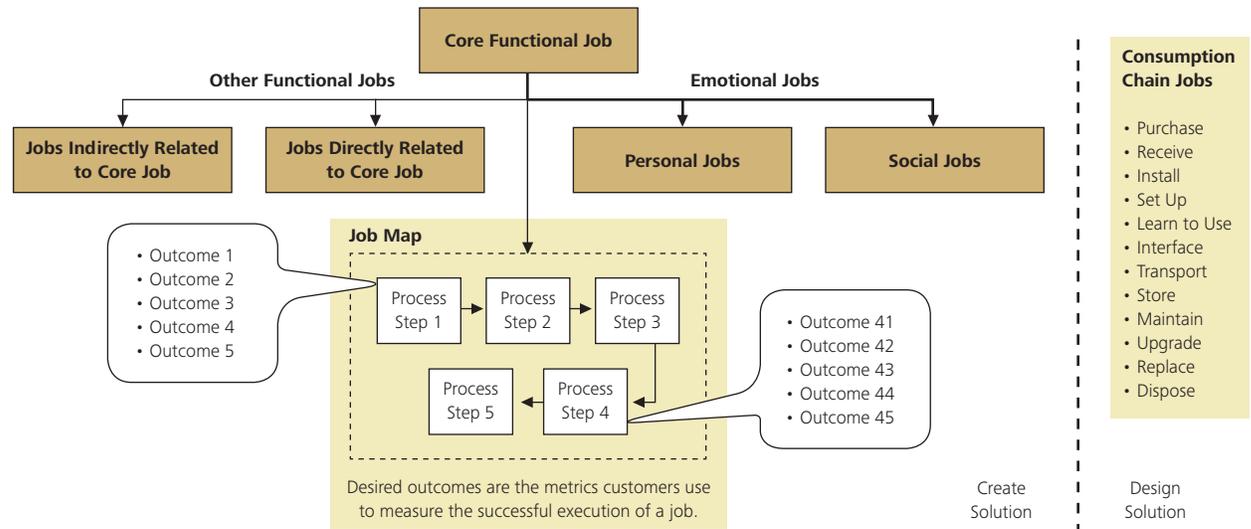
Customer Input Hierarchy

A visual depiction of the structure and relationship of all the customer inputs that are needed to effectively execute the innovation process. (See Figure 1).

Customer Need

The fundamental reasons why customers hire solutions (products, services, ideas, processes, etc.) and choose certain solutions over others. People hire solutions to get functional and emotional jobs done and they choose certain solutions over others because they better satisfy their personal desired outcomes. Generally speaking, a customer need can be a functional or emotional job, or a desired outcome.

Figure 1. The Customer Input Hierarchy



Desired Outcome

A metric that customers use to measure the successful execution of a job. When questioning customers about any given job, companies can expect to uncover between 50 and 150 such metrics, which are known in the outcome-driven paradigm as the customer’s *desired outcomes* because they explain what it is the customer is trying to achieve when executing the job. The name “Outcome-Driven Innovation” originated from the discovery of these outcomes. To ensure consistency between outcome statements and to avoid confounding the way customers prioritize them, Strategyn strongly recommends that the statements be captured in the format shown in Figure 2. (See “Giving Customers a Fair Hearing,” in the Spring 2008 issue of the *Sloan Management Review* for additional details and rules to follow when documenting outcome statements.) Synonymous with customer need, above.

Figure 2. A Desired Outcome Statement

[Direction of improvement] ... [Unit of measure] ... [Object of control] ... [Contextual clarifier] ... [Example of object control]

Job

A task, goal or objective a person is trying to accomplish or a problem they are trying to resolve. A job can be functional or emotional. See customer need, above.

Consumption Chain Jobs

The secondary functional jobs that customers must get done as they purchase, use, and take care of a product or service. For example, customers in many cases must acquire, receive, install, set up, learn to use, interface with, transport, store, maintain, upgrade, replace, and dispose of a product. Those tasks are not the primary reason for acquiring the product or service, but the customer must be able to perform them easily if the product or service is to be perceived favorably. Each of these 12 consumption chain jobs should be considered targets for design innovation, especially those that have a history of poor execution. Each consumption chain job has its own distinct job map and set of need statements.

Emotional Job

The way customers want to be perceived or feel when executing a core functional job. When using a product or service, people may want to be perceived in a way that reflects their desired persona. They may also want to obtain a desired feeling. How they want to be perceived and how they want to feel are the customer's emotional jobs. When driving a car, for example, a driver may want to be perceived as successful and environmentally conscious and may want to feel a sense of accomplishment. While products and services are created to help customers perform functional jobs, they are often positioned around the emotional jobs customers are trying to accomplish.

Functional Job

The primary task or fundamental goal a customer is trying to accomplish or problem the customer is trying to resolve in a given situation. Removing food particles from teeth, filing a tax return, and cleaning a car's exterior are all examples of functional jobs that people try to get done. In addition to core functional jobs, there are also related functional jobs that people are trying to get done at the same time. These represent adjacent market opportunities. To ensure consistency between job statements and to avoid confounding the way customers prioritize jobs, Strategyn strongly recommended that job statements be captured in the format shown in Figure 3. (See "Giving Customers a Fair Hearing," in the Spring 2008 issue of the *Sloan Management Review* for additional details and rules to following when documenting job statements.)

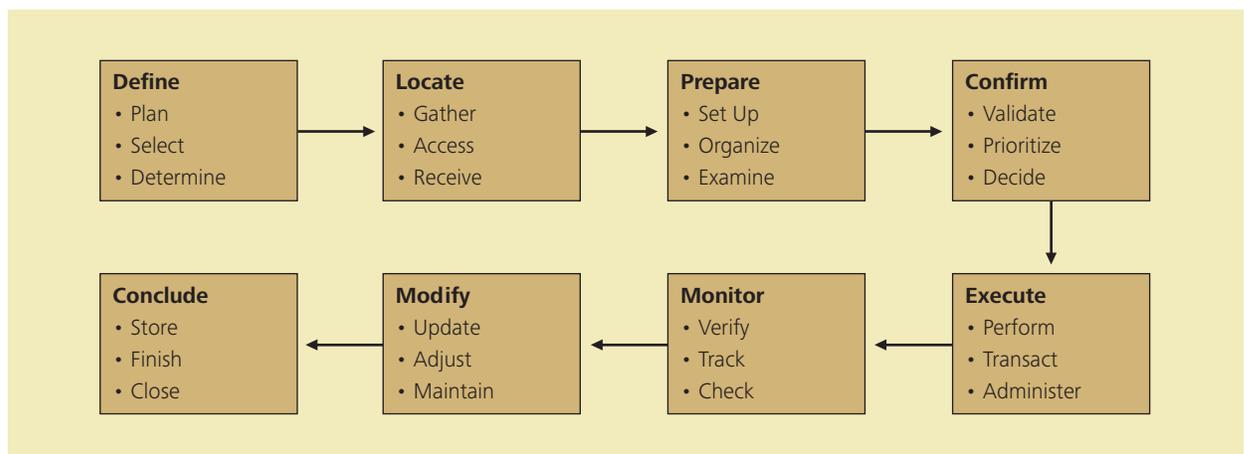
Figure 3. A Functional Job Statement

[Verb] ... [Object of the verb] ... [Contextual clarifier] ... [Example of object of the verb]

Job Map

A visual depiction of a functional job, deconstructed into its discrete process steps, that explains in detail exactly what the customer is trying to get done. Unlike a process map, a job map does not show what the customer is doing (a solution view); rather, it describes what the customer is trying to get done (a needs view). Analysis of hundreds of jobs has revealed that all jobs consist of some or all of the eight fundamental process steps shown in Figure 4: define, locate, prepare, confirm, execute, monitor, modify, and conclude. This insight is essential for creating a framework around which customer needs (outcomes) are gathered. (To learn more about job mapping, see “The Customer-Centered Innovation Map” in the May 2008 issue of the *Harvard Business Review*.)

Figure 4. The Universal Job Map



Discovering and Analyzing Unmet Needs

Disruptive Innovation

Traditionally, a specific instance of the fourth of Strategyn’s six growth paths (see Figure 5), in which the new platform only helps the customer get the job done more cheaply—not better—a strategy that works when the market as a whole is truly overserved. Although this situation has been given much hype, it rarely arises. As suggested in examples cited by numerous innovation experts, in many cases a disruptive platform will be improved or features will be added over time, eventually enabling customers to get the job done better. This suggests that the market was not actually overserved. Our findings indicate that while it is common to find that a small segment of a market is overserved, it is rare that any market as a whole is overserved. Our preference is to define disruptive innovation as the creation of a new platform that replaces an old platform and is attractive to a large segment of the target population.

Market Growth Paths

One of six ways in which a market can be successfully grown through innovation. The categorization scheme used to create the six growth paths includes three elements: the platform (core or new), the job executor (current or new), and the job (core job or other jobs). The growth path or paths that should be followed (see Figure 5) in a given market are dictated by the opportunities that exist in that market. For example, if a dozen or more outcomes cannot be suitably satisfied on the core platform, then the third and fourth growth paths should be considered. With insight into what jobs and outcomes are under- and overserved, a company can decide which paths to pursue. The paths are not mutually exclusive, and the best strategy may be to pursue all growth paths, if the opportunities exist.

Figure 5. Strategyn’s Six-Growth-Path Framework

+ Related Jobs	2. Related-market Growth Add a set of features to the core platform to help customers get a related job or jobs done.	4. Related-market Convergence Construct a feature set on a new platform to help customers get a job or group of related jobs done better.	6. Disrupted-market Convergence Add a set of features to the new platform to help new customers get a related job or jobs done.
	1. Core- or Sustaining-market Growth Add a set of features to the core platform to help customers get a core job or jobs done better.	3. Core-platform Disruption Construct a feature set on a new platform to help customers get a core job or jobs done cheaper and/or better.	5. Core-market Disruption Construct a feature set on a new platform to enable new customers to perform the core job of a specialist.
Core Job(s)			
	Core Platform	New Platform	
	Current Job Executor		New Executor

Opportunity

A customer need that is both important and poorly satisfied (underserved), which makes it an attractive target for improvement, or a customer need that is unimportant and very well satisfied (overserved), which makes it an attractive target for cost reduction. This definition is need oriented rather than solution oriented. Nanotechnology, for example, may be a promising technology, but it is not considered an opportunity. The needs it satisfies are opportunities.

Opportunity Algorithm

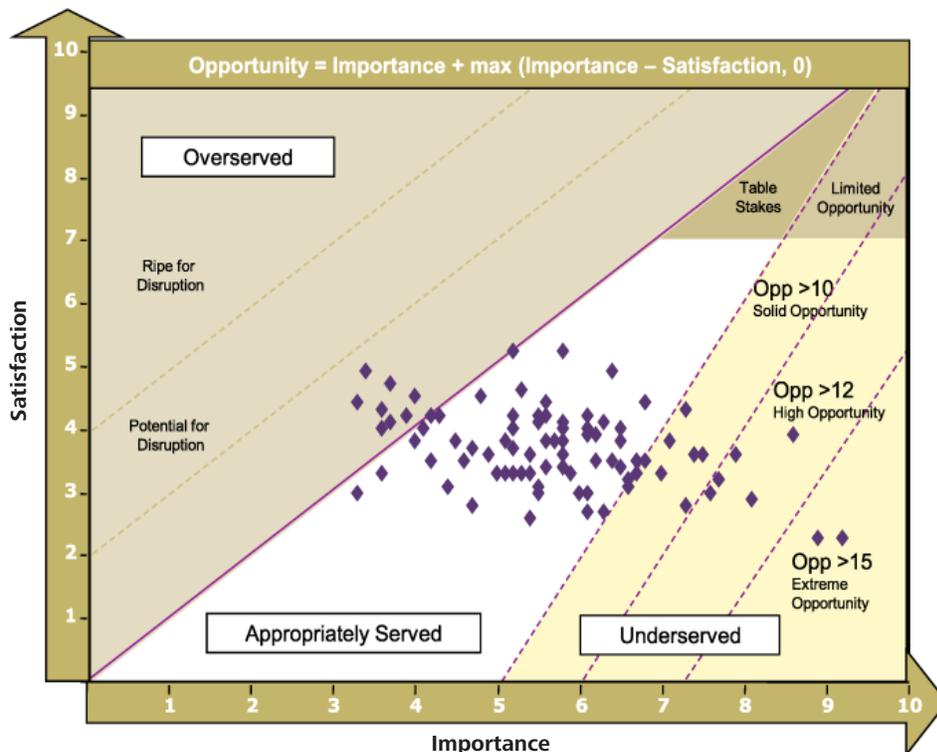
The formula used to determine the degree to which a specific job or outcome is under- or overserved. Our experience has led us to conclude that an opportunity for value creation exists when the opportunity score exceeds 10.0, although lower scores may reflect opportunities in certain situations. Details on how to use the equation can be found in the book *What Customers Want*.

$$\text{Opportunity} = \text{Importance} + \max(\text{Importance} - \text{Satisfaction}, 0)$$

Opportunity Landscape Model

A visual depiction of a market (core job) and the degree to which all customer needs (related jobs and/or outcomes) are important and satisfied. A view of the landscape gives instant insight into whether a market is under- or overserved. (For one example, see Figure 6.) This serves as an input to accurately determine which of the six market growth paths (discussed above) to pursue in order to grow the market.

Figure 6. The Opportunity Landscape Model



Opportunity-Based Segmentation

A method by which unique segments of opportunity—segments of customers with uniquely different need (outcome or job) priorities can be discovered and sized. Opportunity-based segmentation is made possible when a “need” is defined as a desired outcome or a job and “unmet” is defined as important and unsatisfied per the opportunity algorithm. The opportunity score resulting from the opportunity algorithm is used as the numerical value around which this segmentation is performed. Under- and overserved segments are discovered and sized using this method. Job statements are used as inputs when a company is looking to discover segments of customers who have a unique desire to get certain jobs done (market discovery). Outcome statements are used as inputs when a company is looking to discover segments of customers who get a specific job done differently (market growth).

Overserved Market

A market in which many of the customer’s desired outcomes are unimportant and well satisfied, (more satisfied than important). Customers in an overserved market are likely to adopt new products that will help them get the job done less expensively, even if the new products do not let them get the job done quite as well as the products currently available.

Underserved Market

A market in which many of the customer’s desired outcomes are important and poorly satisfied. Customers in an underserved market are likely to adopt new products that will help them get the job done better.

Unmet Need

A customer need that is both important and poorly satisfied.

Generating Ideas

Basic Business Model

The method by which a company generates revenue from its offering and controls costs through its operations. The model defines how a product or service concept can be implemented profitably. For example, the company that conceives the idea of a chewable gum that contains a chemical to dissolve food particles (an innovation that addresses customers' need to clean their teeth) may decide to minimize costs by insisting that its chemical supplier provide the needed ingredients in a directly processable form, thus avoiding additional processing costs and an investment in capital equipment. They may decide to maximize revenue by selling the gum to restaurants as an eloquent alternative to the toothpick, in addition to selling to consumers through typical channels. These cost and revenue decisions are two elements of the company's basic business model and explain how this product can make money for the company. A basic business model can be optimized around a finite set of criteria that control all aspects of profitability. A complete business model addresses distribution, communication, and other go-to-market issues.

Brainstorming

An unbounded method of idea generation that encourages the creation of hundreds of ideas. Most brainstorming sessions rarely produce breakthrough ideas because the targets for a breakthrough idea (customers' unmet needs and the company's success criteria) are unknown. Unstructured brainstorming is not recommended in a structured innovation process.

Breakthrough Innovation

A product or service concept that dramatically improves the degree to which one or more unmet customer needs are satisfied. A breakthrough innovation does not necessarily require a new platform or new technology. Sometimes many unmet needs can be satisfied by adding key features to a core platform.

Concept

One or more ideas that have been melded and refined into a workable solution that addresses one or more customer needs. A complete product or service concept consists of a platform, business model, and feature set.

Creativity

The mental process by which an idea is triggered and conceived. Creativity is required to think of an idea (or a concept) that satisfies unmet needs and company success criteria. While many believe that an outlined process stifles creativity, we believe the opposite to be true: structured idea generation almost always leads to the creation of a breakthrough solution.

Feature

Something that performs a function that allows customers to better execute a job or satisfy a desired outcome. A feature is integrated into a product platform and may take many forms—it may be a piece of information, a service element, an action, or, of course, a component, a material, or a part of a physical object. For example, while the value delivery platform for a device used to remove food particles from your teeth may consist of bristles and a plastic handle, the final product may also include a rubberized grip (a feature) to minimize the likelihood of the brush slipping while in use (a desired outcome), an angled head (a feature) to increase the likelihood of reaching hard-to-reach teeth (a desired outcome) and a textured scraper (feature) to assist with tongue cleaning (a related job).

Focused Idea Generation

The science of generating, evaluating, and selecting the platforms, business models, and features that will comprise a product or service concept. With the customer's unmet needs and the company's success criteria as inputs into the idea generation process, and knowing whether platform, business model, or feature generation is the goal of an idea generation effort, a company can structure and sequence the idea generation process to produce the optimal results for growth. Only one type of idea is generated at a time; creativity is focused on specific unmet needs, and idea generation is sequenced in the most efficient manner—platform first, then business model and features. Evaluation and revision are part of the idea generation process.

Idea

An output of the creative process that defines a way in which specific unmet customer needs can be satisfied. In a structured innovation process, ideas are generated for new platforms (ways to get a job done), business models (ways to generate revenue and control costs), and features (ways to satisfy outcomes and related jobs)

Product or Service Platform

The subsystems that deliver the core product or service, enabling the customer to get the job of interest done, and the infrastructure that enables the subsystems to work together. The value delivery platform is the system into which features will be integrated and the glue that holds those features in place. For a product, the system infrastructure may consist of the materials the product employs, the subsystem interconnections, the energy source, and the product's size and shape, while core mechanical, electrical, chemical, and/or software components would be considered subsystems. For a service, the system infrastructure may include core physical assets such as trucks and buildings and other resources such as people, information, organizational structure, software, communication systems, and the like.

Abridged Glossary of Terms

Basic Business Model

The method by which a company generates revenue from its offering and controls costs through its operations.

Brainstorming

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A product or service concept that dramatically improves the degree to which one or more unmet customer needs are satisfied.

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The set of financial, strategic, and other criteria that a company uses to evaluate the attractiveness of markets, product platforms, business models, and features.

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Consumption Chain Jobs

The secondary jobs that customers must get done as they purchase, use, and take care of a product or service.

Creativity

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Customer

A constituent in the customer chain, for whom the company chooses to create value. The primary customer is always a job executor. This is a person who ultimately uses the product or service to execute the job the product is intended to perform.

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The group of downstream customers who manufacture, distribute, sell, or purchase a product or service as it makes its way to the person who ultimately uses the product or service to execute the job the product was intended to perform.

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A visual depiction of the structure and relationship of all the customer inputs that are needed to effectively execute the innovation process.

Customer Need

The fundamental reasons why customers hire solutions (products, services, ideas, processes, etc.) and choose certain solutions over others. A customer need can be a functional or emotional job, or a desired outcome.

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A metric that customers use to measure the successful execution of a job. Synonymous with customer need.

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A visual depiction of a functional job, deconstructed into its discreet process steps, that explains in detail just what it is the customer is trying to get done.

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A group of people (job executors) and the core job or jobs they are trying to get done.

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Six ways in which a market can be successfully grown through innovation.

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A new job that a group of customers want to get done because of changes in policy or conditions, scientific discoveries, or in support of a new technology, or a job that a significant group of customers now want to get done due to a demographic trend.

Opportunity

A customer need that is both important and poorly satisfied (underserved), or a customer need that is unimportant and very well satisfied (overserved).

Opportunity Algorithm

The formula used to determine the degree to which a specific job or outcome is under- or overserved. It is defined as $\text{opportunity} = \text{importance} + \max(\text{importance} - \text{satisfaction}, 0)$

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A visual depiction of a market (core job) and the degree to which all customer needs (related jobs and/or outcomes) are important and satisfied.

Opportunity-based Segmentation

A method by which segments of customers with uniquely different desired outcome or job priorities can be discovered and sized.

Outcome-Driven Innovation (ODI)

ODI is an effective needs-first approach to innovation. It corrects the flaws in the methods that have been used to date.

Overserved Market

A market in which many of the customer's desired outcomes are unimportant and well satisfied.

Product or Service Platform

The subsystems that deliver the core product or service function, enabling the customer to get the job of interest done, and the infrastructure that enables the subsystems to work together.

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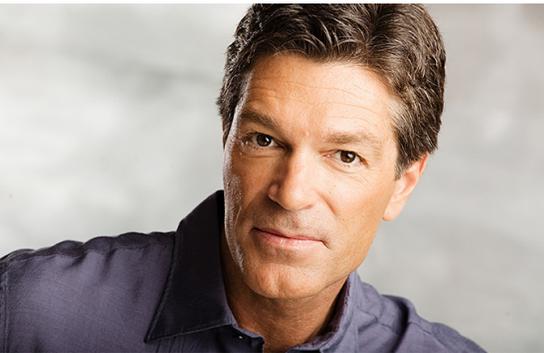
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Anthony W. Ulwick is the founder and CEO of Strategyn, an innovation consulting firm based in San Francisco, California. He is the author of *What Customers Want* (McGraw-Hill, 2005), "Turn Customer Input into Innovation" (Harvard Business Review, January 2002), "The Customer-Centered Innovation Map" (Harvard Business Review, May 2008), and "Giving Customers a Fair Hearing" (MIT Sloan Management Review, Spring 2008). He can be contacted at ulwick@strategyn.com.

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