

## Identifying the best Innovation Opportunities

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### Overview

Innovation presents a challenge for many executives, because it demands attention and resources that are typically devoted to driving short term revenue and profits. Wall Street demands are so intense that while corporate executives understand the need for innovation, they aren't overly excited about shifting resources. Further, since many executives don't have a lot of innovation experience, they often can't adequately define the innovation opportunities or effectively rank the innovation opportunities their teams present. This lack of information and experience creates significant difficulties defining innovation scope, identifying interesting markets or opportunities to explore, and in ranking innovation projects or opportunities. Without clear definition and an effective ranking process, it's difficult to convince executives to make meaningful investments in innovation.

The lack of innovation experience and difficulty investing in innovation create a number of challenges. First, while markets reward innovators, how does a company identify the best opportunities to explore? Second, given a selection of innovative options, how do executives determine where to invest limited resources? Third, what information can be provided to executives to simplify these decisions?

These concerns are important. Executives face strategic direction and investment tradeoffs every day, but lack experience or tools to help them make informed decisions about innovation. These executives need methods or tools to help decide:

- how to balance between the needs for innovation and the demands for efficient day to day operations and,
- how to discover new needs and opportunities and create disruptive new products and services and
- how to identify the best opportunities before competitors are aware of the market need.

Increasingly, innovation activities must be more *definitive*, helping identify not just ideas but valuable opportunities to explore. Innovation must also be more *quantitative*, providing specific information about the best opportunities supported by data. Innovation options must be easily *ranked or prioritized* based on opportunity, potential competition and internal capabilities. Finally, executives need more information to understand the impact of the potential innovation in terms of revenue, profits and margin.

### A new approach

Based on this analysis, we've recognized the need for a new innovation solution that is comprehensive, holistic, quantitative and provides detailed information for executives that reduces risk and aids in decision making. An approach that combines external, uncontrolled market forces with internal capabilities and defines the best opportunities for innovation. An approach that highlights important future intersections, where internal plans and external trends create valuable opportunities for new and valuable solutions. This approach also identifies emerging gaps, where internal capabilities and customer demands diverge, signaling the need for new capabilities or technologies. Finally, this approach will signal potential divergence, where future capabilities and plans move in entirely different

directions than expected market trends and customer demands. Understanding these intersections, gaps and divergences will help organizations select the opportunities that provide the best opportunity to “win”, and highlight future strategic opportunities and challenges.

Once the best opportunities are identified, teams can discover solutions based on idea generation and open innovation, leading on to robust prototyping and piloting, requirement definition and finally customer validation. In relatively little time this offering can

- 1) help identify potential innovation opportunities,
- 2) identify emerging intersections, gaps and divergences,
- 3) rank the best opportunities for innovation and
- 4) develop a meaningful market valuation for the proposed innovation opportunity.

### The approach

Our 5 Vectors solution combines information from a number of sources to examine uncontrolled, external “vectors” (factors like customer unmet customer needs, technology trends, likely competitive actions, existing and anticipated intellectual property) and internal, controllable vectors (existing and future capabilities, existing product portfolio and roadmap) to identify emerging valuable opportunities and the potential for intersections, gaps and divergences.

### Discovering Emerging Opportunities

Every day, every industry is influenced by evolving external trends. New technologies are regularly introduced. New channels and business models emerge. Customer demands shift based on new “jobs to be done” and new expectations. These trends are external and can’t be controlled by an individual company.

We define these changes as “vectors” which have a purpose, speed and direction. For example, Moore’s Law suggests that computing processing capability will roughly double every two years. Some trends and vectors can be mapped and even predicted with a high degree of certainty, while others are far more qualitative. Understanding these trends and the changes they will make in your industry is paramount, because ***these changes define emerging opportunities*** and signal the end of previously profitable products and services.

#### *Technology*

The first vector to evaluate is technology change. Understanding how technology is changing and how rapidly is vital for innovators. No business is immune to the immense technological changes that are occurring now, because even “low tech” industries can be disrupted by new advances in technology. You must understand how technology is changing, how fast it is changing and make predictions about what those changes can mean to your business, or what new opportunities or threats emerging technology will create.

#### *Customer Needs / Expectations*

The second external vector considers customer needs and expectations, but we can even take this further to assess the future composition of the market. Customers and segments are constantly changing, and their expectations and needs are constantly changing as well. We need to understand the met and unmet needs for different segments, and how those needs shift expectations.

### *Other important trends/shifts*

While technology trends can shape a market, increasingly other factors also have great sway over future opportunities and competition. One important factor is emerging business model shifts or platform shifts. For example, we see many traditional products moving to “as a service”. Anticipating these shifts as a potential vector helps innovators understand the type of innovation outcome and the potential market size, as well as understand where the power in that new market will lie.

Technology, customer needs and expectations and emerging business models combine to define emerging opportunities. These emerging opportunities are in turn shaped by another external vector: existing products and competitors. Emerging opportunities are likely to attract existing competitors, and any new opportunity will attract new entrants, alternative solutions and substitutes. These competitors, alternatives and substitutes shape the emerging opportunity. Innovators must take into account both the emerging opportunity and the way that existing and potential competitors will shape the opportunity.

### *Competitors*

It makes sense to begin to evaluate competitive actions and investments, to determine how your competitors evaluate emerging opportunity, and to begin to identify new, emerging or adjacent competitors that may identify new market opportunities. Analyzing and predicting how existing competitors will act helps identify the opportunities where the competition is less fierce, and whether or not your firm will be an early pioneer or a late entrant.

### Internal Capabilities

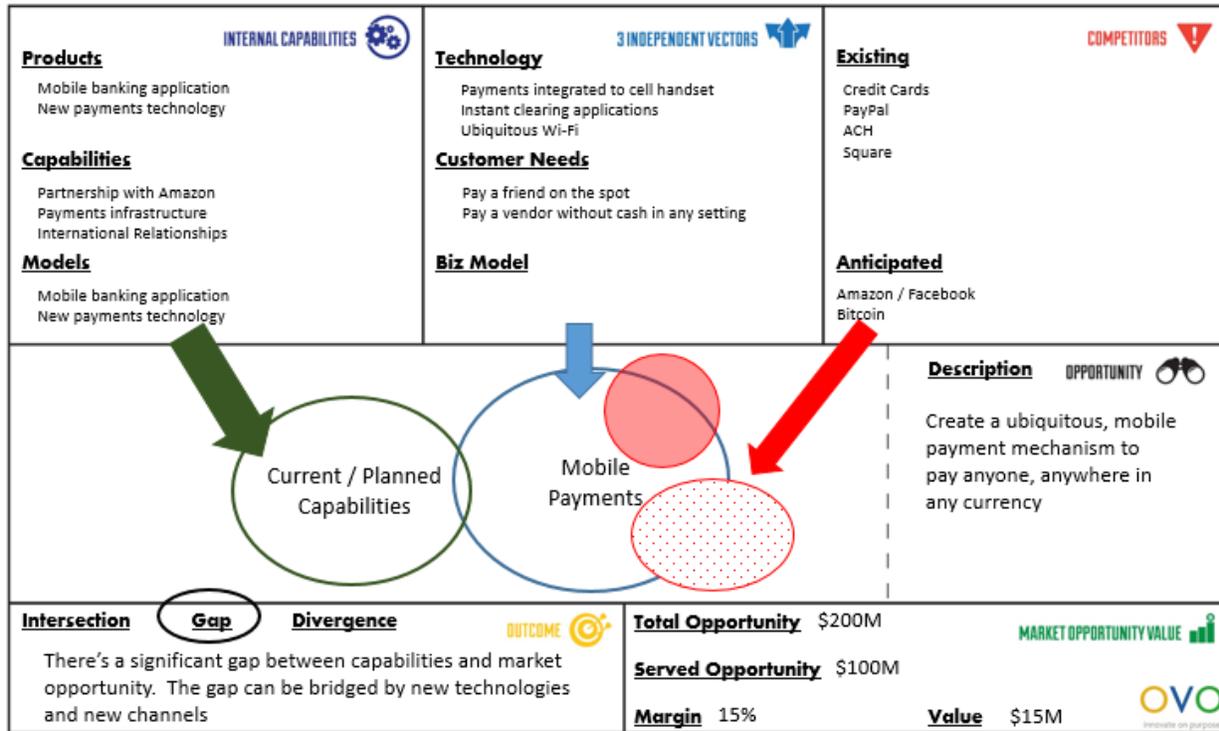
While there are a number of external vectors in the market space, internal capabilities, products, business models and strategic plans are fully within executives’ control. Starting from the most basic product and service portfolio, we can define existing products, services, business models and capabilities and map future roadmaps and investments. These are governed by existing strategy and funding, as well as anticipated market shifts and competitive threats. Just as we can forecast the direction and potential intersection of future trends, customer needs and competitive offerings, we can forecast internal capabilities and potential product or service offerings. This projection is based on existing product, service and capability portfolios, and extended based on future strategy and potential investments, leading to a product, service and capability roadmap.

### Mapping the vectors

External trends and customer needs, along with business model shifts and competitive actions define and shape emerging opportunities. As you map existing and future internal capabilities to these emerging opportunities, three outcomes are possible. As these vectors move they can intersect, diverge slightly or move in opposite directions. Understanding how opportunities emerge and the challenges and costs to serve them helps prioritize innovation opportunities. Understanding each of these vectors and their anticipated intersection, gap or divergence helps executives make more informed innovation decisions.

Armed with insight into the direction of external vectors and with a good understanding of internal, controllable vectors, a company can begin to identify the most promising intersections, gaps and divergences.

### Sample 5 Vectors Report



In the chart above, we can see the external, uncontrollable vectors (Technology trends, Customer Needs and Business Models) are coalescing to form a new opportunity around Mobile Payments. Mobile Payments is an emerging opportunity. On the upper right we can see that existing and anticipated competitors are already evaluating or participating to some degree in that emerging opportunity. The solid red circle indicates competitors that exist, the dotted red circle suggests potential market competition.

On the upper left corner, we can see the “vectors” that the corporation controls: products, services, capabilities and business models, current and projected. From this data we can project capabilities and solutions that align to or overlap the emerging opportunity. In this case we may discover that there is little overlap between existing and planned capabilities and an identified opportunity. Thus, as shown in the lower right, the analysis defines a “gap” between capabilities and an emerging opportunity.

#### Potential Outcomes

After mapping the five vectors, identifying an emerging opportunity and determining the influence of existing and potential competitors, a company can then map its controllable vectors (products, services,

business models and future capabilities) to the emerging opportunity. When the mapping is complete there are three potential outcomes: intersections, gaps and divergence.

### **Intersection – Promising but more investigation is necessary**

An Intersection occurs when we find that external, uncontrollable vectors (customer needs, demands and expectations, external technology trends and business model shifts) create opportunities that align with internal and controllable vectors (capabilities, products, roadmaps, plans). At first glance, an Intersection seems the most promising opportunity for innovation, because existing or future capabilities align with emerging opportunities. Three competing factors may change that analysis.

First, competitors may recognize the emerging opportunity and are already in position to provide solutions or are moving to do so. While your capabilities and products may closely align to a new opportunity, the space may be highly competitive and less lucrative as a result. Second, while an intersection may exist between internal capabilities and an emerging market opportunity, the business model or market opportunity may not make sense. It's not enough that an opportunity exists, it must be profitable to serve that opportunity. This is the idea of taking coal to Newcastle – they already have enough. Finally, readily available intellectual property or good alternative solutions may make it easy for competitors or new entrants to serve the emerging opportunity, thus making the intersection less attractive. Thus, it's not enough to identify an emerging opportunity and map internal capabilities to find an intersection. We must go further to understand the financial attractiveness of the potential opportunity and the depth of competition we'll face as the opportunity unfolds.

### **Gap – May prove to be the best answer**

A Gap occurs when we find that customer needs and technology trends define an emerging opportunity that isn't quite aligned with our existing and planned capabilities. Defining the gap becomes important, and understanding the work to transit the gap – to be credible serving the recognized opportunity – is exceptionally important. Just as an intersection may first appear promising, then later disappoint, a Gap may at first seem challenging but become a valuable opportunity because no other competitor targets the space or acquiring the capabilities or technologies necessary to transit the gap is easier than expected.

We define Gaps as differences between where the opportunity will be and where your capabilities and products allow you to go. These gaps can take many forms. In some cases there will be gaps that can be addressed by one new capability or feature, say a new technology or new channel, and other gaps where multiple new capabilities are required, for instance, the introduction of a new technology and a business model. Each gap has a different "transit" value – that is, the investment in terms of dollars, resources, psychic effort, cultural resistance – that must be paid in order to bridge the gap. Gaps may be expensive to bridge or surprisingly easy to bridge, but each bridge or "transit" has a cost. The cost will dictate the attractiveness of the emerging opportunity and to some extent may signal the likely competition. We may find that our competitors face the same gaps, and the first one to close the gap may win the lion's share of the opportunity.

Of course some of the same caveats apply to Gaps that we identified in Intersections. We must understand competitor intentions and ensure that the emerging opportunity is worth winning.

## **Divergence – a strategic signal**

Intersections and Gaps present potential opportunities for innovation, while the third outcome, Divergence, presents more strategic options. Divergence occurs when customers, trends and even competitors are moving in directions and speeds diametrically opposed to your capabilities and roadmaps. In most cases diverging opportunities and capabilities will be complex and difficult to bridge. The recognition of diverging markets and capabilities may lead to strategic discussions around exiting the business or perhaps acquisition of competing businesses. As an example, consider Blockbuster's examination of the movie rental business as Netflix, RedBox and "on demand" movies emerge. Customers had new expectations based on these new offerings, and technologies and business models were moving in very different directions than Blockbuster's models and capabilities. If Blockbuster had recognized the divergence from its own capabilities and models early enough, it could have acquired or built a competing service to Netflix or Redbox, changed its own business model or exited the business gracefully.

From these identified Intersections, Gaps and Divergences we can find the most valuable innovation opportunities, which are based four factors:

1. value to customers,
2. alignment to key internal capabilities (or smallest transits),
3. best return for the company and
4. the expected competitive landscape.

This means that we can quickly present the best innovation opportunities to executives, based on a number of key trend vectors, internal capabilities and competitive intelligence.

### Beyond identifying opportunities

This approach has value beyond simply identifying the best innovation opportunities. Since a reasonable investigation is conducted into customer needs and competitive intelligence, as well as important trends, innovation teams can move quickly to find the best ideas, using three different techniques.

1. If the best opportunity is an *intersection*, teams can likely generate solutions internally (idea generation).
2. If the best opportunity is a *gap*, the best opportunity may acquiring new capabilities or technologies through open innovation.
3. When faced with diverging opportunities and capabilities, the best answers may be to acquire other companies (to remain in the business) or to exit the business.

This methodology not only helps identify the best innovation opportunities for executives to invest in, but it also signals the best innovation methods to generate viable solutions.

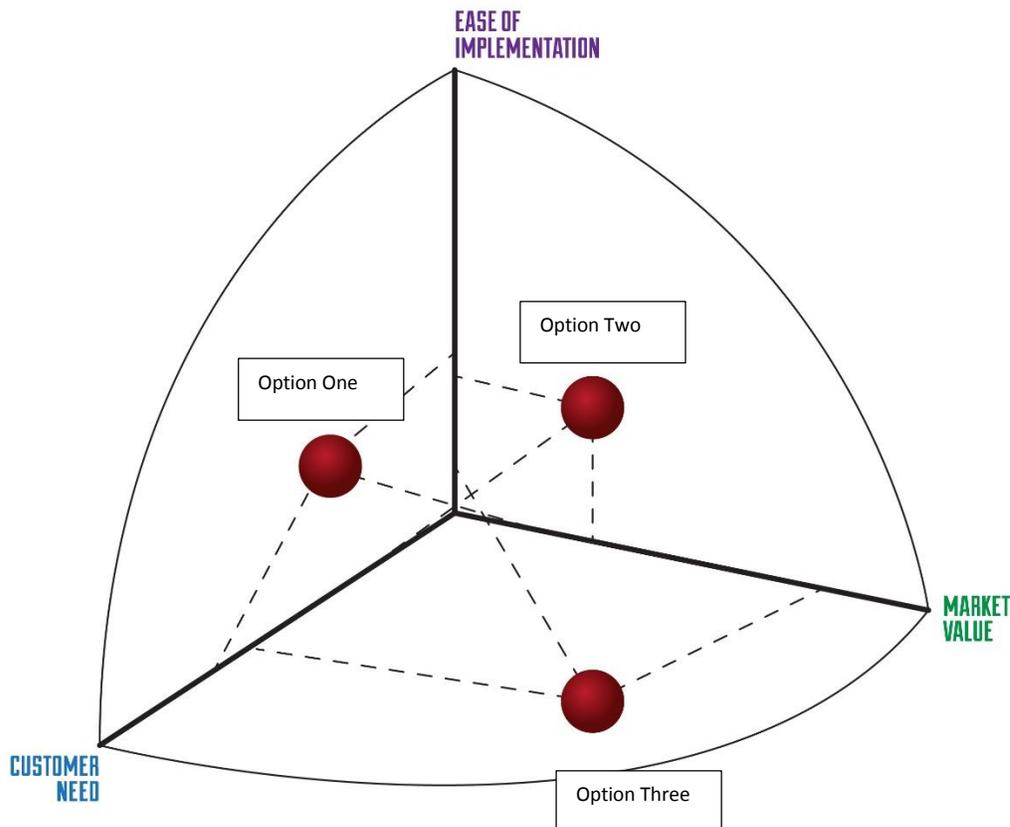
### Evaluating multiple innovation opportunities

The real value of this approach is in creating objective information about competing innovation opportunities. Since resources and funds are limited, and every innovation activity has to balance both the investigation and development risk with potential returns, many executives find it difficult to compare different innovation opportunities and make the best selections. When this happens, most executives will default to more tried and true incremental activities, which combine less risk and less reward, or will avoid making a decision at all.

One output of our process is a map which positions each of the identified opportunities in a three dimensional space, where each axis represents a key decision factor. Those factors are:

1. Customer need – how well an opportunity maps to unmet customer need
2. Gap and investment – a measurement of how large the gap is between existing capabilities and the expected product or service
3. Return – the anticipated financial return if the opportunity is pursued

By mapping competing innovation opportunities in this space, we can simplify decision making by illustrating these risk factors and helping decision makers make tradeoffs. It is rare that a single idea scores well on meeting customer need, reducing investment and achieving the best return. Mapping the opportunities can help determine where the greatest sensitivity lies and help make better, more informed decisions. There's one other factor to consider, of course, and that's the potential size of the opportunity, in terms of market share or revenue. The chart on the next page illustrates how competing innovation opportunities can be mapped against common evaluation criteria to simplify decision making.



In this example we can see that option 1 does a good job satisfying customer need (as does option 3), but option 3 is very difficult to implement (low on the vertical axis) while options 1 and 2 are higher on the vertical axis. Finally, option 3 has a high market value potential, while option two is less attractive.

Internal priorities and strengths will determine which of these opportunities is pursued. If ease of implementation is prioritized, then option one may be more likely to be approved. If meeting or exceeding customer needs and the potential for higher return is prioritized, then option 3 may be prioritized. This comparison model helps compare disparate opportunities and bring to the surface the most important decision making factors.

Option	Customer Need	Ease of Implementation	Market Value
Option One	High achievement	Moderately easy to implement	Low market value
Option Two	Low achievement	Moderately easy to implement	Moderate market value
Option three	High achievement	More difficult to implement	High market value

With this data in hand, executives and innovation teams can do a much better job deciding which innovation opportunities to pursue.

#### What's valuable about this approach?

Identifying innovation opportunities using the 5 Vector approach is valuable for a number of reasons. First, most companies don't have experience investigating and making recommendations on innovation opportunities, which means they revert to known and trusted methodologies that aren't appropriate or applicable to innovation opportunities. The 5 Vector approach defines a *powerful, easily executed methodology* to frame and select innovation opportunities. Second, while the 5 Vector approach defines a range of innovation opportunities, it also helps *identify the best opportunities* based on key decision criteria. Third, the framework introduces *quantitative reasoning and information* into what has been a mostly qualitative process and develops apples to apples comparison of divergent ideas. It does all of this in a *holistic and inclusive manner that observable and repeatable*.

#### Conclusion

Innovation activities always begin in a very uncertain, murky environment, poorly defined yet aspirational. Executives know their companies need to innovate but can invest only a limited amount of time and energy to innovation without distracting efficient operations. The ability to identify the most promising innovation opportunities and prioritize them is vital, as is developing a clear rationale for selection. The 5 Vectors approach defines how emerging opportunities are created, and helps define both the competitive landscape and how internal, existing and planned capabilities map to the emerging opportunity. With this information in mind, selecting the best innovation opportunities becomes far easier and far more predictable, eliminating risk and reducing cost, while ensuring your team pursues the best innovation opportunities.

Using the 5 Vectors approach your team can not only identify the best innovation opportunities but can also quickly move from defining opportunities to generating solutions, with signals as to the best approach, either internal idea generation or external technology scouting.