

VP Technology, CTO, The Broad Influencer

When you finish reading this article you will feel that I am expecting you to think as broadly as the CEO of your company. And why not? Technology is the enabler of short-term and long-term profits. Better yet, I am expecting you to think also like the CEOs of the competitors of your company, and that is in order to be a step or two ahead of them.

All aspects of the business are linked to profitability and therefore to technology. Look even as far from the products as the supply chain; if there's an opportunity to optimize it with an introduction of a new technology, you could find real gold - incremental cents per share!

My focus is on B2B Software technology companies; my points are for you, if your company's main asset is its ability to develop software. As the head of Technology for your company there will be many types of tasks that will naturally flow to you. They are all directly or indirectly linked to your responsibility; you should welcome them all and execute them in the best way because in any one of them there's an opportunity to deepen your search for opportunity that lies in the technology itself.

Depending on the size of the company and that of your team, these incoming tasks will be a mixed bag of:

- Chief architect assignments; for example, examining components or platforms that make up the foundation of the product or service, and looking for potential limitations that might threaten its performance at scale.
- You will be the technology head communicator for the company and the main educator of the R&D staff. You will share the latest trends and developments of key technologies that are already in use, or ones that could be better alternatives.
- You will also be the executive speaker representing the company in outside technology forums. For many companies the Chief technologist is like their northern star that helps position them in the industry.
- Advanced development projects also find themselves sometimes in the hands of the Chief Technology team in order to qualify the validity of proposed technology before it's handed over to R&D for development.

The more mature your company is, your role's focus should be less on these assignments and more on the potential of technology to secure the future competitive advantage of your company. The assignments listed above will ensure that you always keep one leg solidly in reality. Your other leg should be fumbling the ground in front of you to find good grips to hold on to - one leg in reality and one leg in the future. For companies whose R&D marches to the drum of a 2-quarter roadmap, the horizon of the future will be around 18 months.

As much as the dream journey of the VP R&D is for continuity, yours is that of discovery. The technologies of the future that might, on one hand, lift your company to a better trajectory, or, on the other, threaten your company, are out there; you need to venture out - they're not to be found inside the house. You and your team need not only to research these technologies, but also guess, or estimate, their inflection points that will change their course and might change yours as well, for better or for worse. Therefore, you should keep fumbling these fronts with your stronger leg.

You shouldn't end up like Sidharta wandering in uncharted territories in search for enlightenment; rather, think of your journey "outside the house" like a canvas that you will fill with a painting, then erase, and start all over from scratch every quarter or so. Some areas of the painting - the sun, the house - might repeat, but the overall composition will be different every time.

The elements of the picture make up your research checklist (this checklist was inspired by Steve Blank's Lean Startups methodologies).

1. **Problem.** What are the customer problems that the company's products or services are solving? Is there an opportunity to broaden the products' application? Might these products have value for other types of customers? What are the technologies that will enable expansion?
2. **Solution.** Are there competitive approaches to solving these problems with different technologies? Is our solution comprehensive enough to be called a complete solution by the customers? Or is it one piece and the customers need to get the other pieces from other vendors? Can we make our solution more complete with new technologies, and with it achieve a better hold on the customers?
3. **Key metrics.** What are the key metrics for success of our value proposition in the eyes of the customer? Metrics of effectiveness, or efficiency, or both? Can we find technologies that will improve the total performance and strengthen the value proposition?
4. **Unique value proposition.** Do we have a unique value proposition for our customers? Can we make it more unique and less vulnerable to competition? Is our value proposition a high priority for our target customers? Can we increase the importance of our product in their eyes? Can we find technologies for that?

5. **Competitive advantage.** In addition to the standard competitive table that compares products feature for feature, as head of technology you need to compare the underlying technologies of the main competitors, and estimate their development potential and the advantages they might bring to the competitors in the future. You need to find technologies to stand up to these future competitive pressures.
6. **Channels to market.** Sometimes a product's advantage is in how it's delivered to its user. Think of the Google Drive suite vs. On Premise applications, for example. Feature-wise it's deficient, and yet you can't overlook its popularity. This example should remind you to look for technologies that simplify the delivery of your company's products and services.

If the company's revenue depends on channel partners, take all of the questions in the checklist, and replace the word "customer" with the words "channel partner". They - the partners - are simply an added layer of the value chain that should be your beacon when you look for value creating technologies.

7. **Customer segments and Cost Structure.** Here's the opportunity to find technologies to reduce cost and add to profits. Your company, hopefully, differentiates customers by tiers. The threat to profitability lies comfortably in the third tier - these are the customers that are sometimes referred to as "the long tail". Often, the number of long tail customers is much higher than in the other tiers, and in terms of support, they consume as much, or close to, the customers in higher tiers. And this is, naturally, a threat to profitability.

The response to this strategic situation could be "manual", i.e, restricting the level of service by forming standard packages for each tier, or "inherent" by creating totally different versions of the product or service. And that's another technology play.

8. **Revenue Streams.** Thinking correctly about the company's strategy dictates that we analyze everything by revenue streams and not by products. For example, product A sold to high end customers dictates the quality of the product and the entire package that comes with it. Obviously, the same product sold to low-end customers, or another geography, calls for different packaging and ways and means of sales. These two are separate revenue streams and the entire set of decisions pertaining to each of them should be discussed separately; they are two different business models. From a technology perspective, they are also two separate playing fields; what's acceptable, or in the budget, for one, may not necessarily be justified for the other. In essence as head of technology you have two jobs packaged in one role.

As beacons on the machinations of your field of technologies, you should develop relationships with small and large customers and continuously communicate with them. I propose you maintain technology profiles of key customers and key suppliers and competitors. Use a systematic approach to your research targets, and you'll increase your chances of not missing

anything significant on your search for maximizing the power of technology for the benefit of your company.

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