ENERGY CATALYST

INSIGHT: An innovators' guide to navigating market integration risks

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Energy Catalyst accelerates the innovation needed to end energy poverty. Through financial and advisory support, and by building strategic partnerships and uncovering new insights, Energy Catalyst supports the development of technologies and business models that can improve lives in Africa and Asia. One feature of the support provided in the accelerator is centred on helping innovators to understand their product-market fit. Energy Catalyst is an Innovate UK programme with co-funding from the Foreign, Commonwealth and Development Office, Global Challenges Research Fund, the Department of Business, Energy and Industrial Strategy and the Engineering and Physical Sciences Research Council. This material has been funded by UK aid from the UK government; however, the views expressed do not necessarily reflect the UK government's official policies.

This insight piece highlights the potential risks of introducing innovation in a given market and offers mitigation strategies to help companies avoid those risks. It provides a snapshot of research undertaken with the co-operation and input of Energy Catalyst portfolio companies, as well as a range of interviews with other key market players.

The ecosystem of innovation

For most companies working to push an innovative concept to market, their market strategy is focused on execution; how to deliver on time, to specifications, to beat the competition and make sure the end customer is happy. This is already quite a difficult task requiring a lot of competence and

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effort especially when serving frontier markets or remote, rural customers from low-income brackets.

Increasingly innovation is not autonomous but happens as part of ***an ecosystem*** and involves more than directly selling your product to the end customer in isolation. The challenge is that it is not always explicitly clear how your success depends on others. This lack of clarity on your innovation landscape and the resulting blindspot can often lead to failure.

Failures of innovations are usually explained in one of two ways:

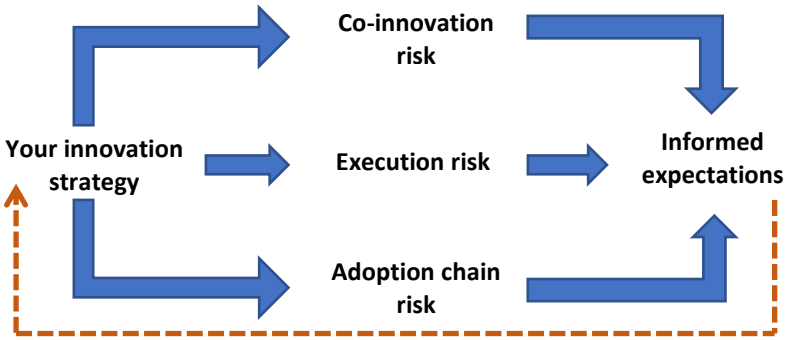
- Shortfall of customer insight (do they know your product? Can they afford it? Do they like it?)
- Shortfall of leadership and implementation (can you build better capabilities to deliver on promises and beat the competition?)

Both of these types of failures can be classified under "execution risks". Plenty of management tools direct focus towards identifying and mitigating the executions risks mentioned above.

However, a great execution is a necessary but sometimes insufficient condition for success in the innovation landscape. One example is the unsuccessful launch of 3D televisions in the last decade. Despite the affordability and quality of the TVs produced, the dependency on the development of other 3D-capable sectors, from the 3D content production to 3D wearable devices, Blu Ray Players or transmission networks, prevented any chance of success for 3D TVs.

Another example was the PAX "Run Flat" tyres developed by Michelin, which could run for a long time despite a flat. While the innovation was very attractive, service stations didn't acquire the specific tools needed to service them since there weren't many cars with that technology, and thus consumers were reluctant to switch to these tyres since there weren't many places where they could service them. In this case, the poor adoption of the innovation by the intermediaries in the value chain prevented it reaching the end customer

By focusing on the complete ecosystem and understanding and quantifying the risks involved within such an ecosystem, you can fundamentally change your approach and improve your chances of success. Once the thinking shifts in this manner, it directly impacts how to approach your strategy. The process involves evaluating and prioritizing the opportunities and threats, then planning your timing and positioning as well as defining success realistically.



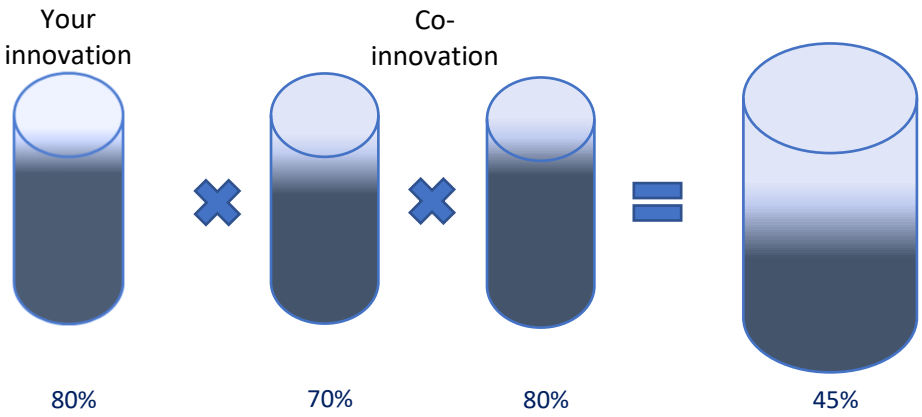
The two main types of risk for innovations

Based on the dependencies arising from such innovation market ecosystems, two distinct types of risks can be identified:

- **Co-innovation risk**: To what extent does your success depend on the successful roll out of another (external) innovation?
- **Adoption chain risk**: Who all need to adopt your innovation for the end customer to get the complete value of your offering?

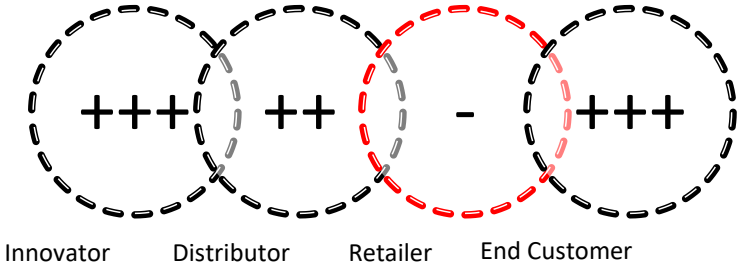
Co-innovation risk: As in the case of the 3D TVs, when your innovation depends on the successful rollout of another innovation (a product, service, mechanism, etc.), then the success of this external dependency becomes critical to the success of your own innovation. However, these dependencies are not always directly visible to you. They might be co-innovations that your suppliers, intermediaries (distributors or retailers) or even your end customer depend on.

It is important to assess the risk of timely delivery of your co-innovations in order to assess the risk of your own innovation's success. For every co-innovation you depend on, the probabilities of success get reduced, since the probabilities multiply.



If you are 80% sure of your innovation 's successful delivery in terms of timeframes, but depend on other (equally highly likely) co-innovations to succeed within a certain time period, the total probability of success is reduced.

Adoption risk: Similarly, in the case of Michelin's "Run Flat" tyres, when your innovation passes through intermediaries (distributors, retailers, franchisees, etc.), it is not always certain that they will adopt the innovation. This could be due to other commitments, opportunity costs, aversion to change or a host of other internal or external reasons. Every intermediary between you and your end customer needs to fully adopt your innovation for the end customer to see its value. The successful adoption of your innovation is thus only as certain as the weakest link in this adoption chain.



In the above example, the different stakeholders' value creation has been represented by +'s or –'s. Every intermediary should see positive value creation through adopting your innovation. Having a lot of positive value creation (++ or +++) is good, but the end customer will not be able to see that value unless the retailer (who is currently seeing a negative value) sees enough value to adopt your innovation. In the current situation, the innovation will die out at the retailer level and not make it to the end customer. To enable success, the reasons behind the retailer's adoption hesitancy need to be

understood and resolved. This could be done by reallocating value (for e.g. margins or end user warranty risks etc.) from one of the other stakeholders to them.

The value blueprint

Within the Energy Catalyst Accelerator Programme (ECAP), we have addressed these concepts using real world examples from management literature as well as case studies based on a number of interviews and workshops with start-ups.

Through this, we have developed a framework, the value blueprint, which enables you to apply this thinking to your innovation. When this method is applied to your business, it will allow you to see the different actors that must come together, at the right time, for your innovation to succeed. It also enables you to see where there are some weak linkages and important dependencies that might pose a risk to your innovation from reaching the end customer.

The framework also presents a route towards scalability for innovations that involve complex landscapes with multiple external dependencies. It explains how staged expansion of your offering can help eliminate market integration risks and help position you better, in your innovation's value blueprint.

Further reading:

The bulk of this research, examples and theory was collected from the author on the subject of market integration risks, Ron Adner, including his papers, books, videos and lectures on this topic.

https://hbr.org/2016/11/right-tech-wrong-time
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