


Interest in ecosystems is back with a vengeance but, say **Arnoud De Meyer** and **Peter J Williamson**, setting them up and maintaining them is far from easy

Building new ecosystems to create customer solutions



We all know that the world in which businesses operate is changing fast. Agility and speed have become more important for an organisation than stability, predictability and control. Information and communications technologies are enabling worldwide co-ordination and interaction for even the smallest companies. We are moving into a knowledge-intensive economy where, contrary to other production factors, knowledge gains in value the more it is used.

And customers are changing too. In our mature industrial societies customers live longer and expect technology-enabled solutions. Consumer activism and government regulation are raising the bar with respect to customer protection, traceability and sustainability.

Therefore, many of our companies will have to invest in more innovation and development of new customer solutions. And once they have some of these solutions, they may have to grow at lightning speed.

What is the best way to organise to meet this innovation and growth challenge? For more than a decade we have studied the responses of leading companies all over the world and spanning many different industries.

We looked at how the Alibaba Group was able to build a massive and dominant position in e-commerce and consumer finance in China in less than 20 years. And how Amazon was able to create a market share of more than 30% in cloud services, far ahead of any of its competitors.

We looked not just at large platform-based companies. We also examined why nearly all of us are unknowing customers of ARM, a relatively small company in Cambridge in the UK that designs the IP for RISC chips that is used in all our smartphones and many other communication devices.

While all these examples were newly created companies, we also studied how the Guardian, a long-established news and media group in the UK, was able to reinvent itself and create one of the most consulted news websites in the world.

And we all know that the success of smartphones arose when Apple, a hardware producer, found a way to engage efficiently with tens of thousands of independent app developers.

We have examined how the French software developer Dassault Systemes successfully extended its Product Life Cycle Management Systems from aeronautics and automotive design into nine new industries and in the process multiplied its market capitalisation eight times in 15 years.

And we did not limit ourselves to commercial organisations. One of our in-depth case studies describes how Singapore's Building and Construction Authority deployed an ecosystem to promote productivity increases in Singapore's building sector using new materials and mass-engineered timber and prefabricated modules.

So what lies at the heart of all these examples of successful innovation and transformation? The answer is that these companies created new customer solutions through a hybrid form of organisation somewhere in between markets and hierarchies.

All of them created communities and ecosystems that helped them innovate. Ecosystems are not new, of course. The Commons in medieval English towns where cattle were herded together for the whole town or the Javanese rice terraces where the farmers must co-operatively manage the flow of water over these terraces were already early forms of ecosystems.

But it was Jim Moore who in 1993 (Moore J.H., 1993, "Predators and Prey: A New Ecology of Competition", *Harvard Business Review*, May-June) renewed our understanding of how ecosystems could be relevant to new forms of competition. He described a business ecosystem as "a network of organisations and individuals that co-evolve their capabilities and roles and align their investments to create additional value and/or improve efficiency."

Over the last few years the value of ecosystems and the role they play in innovation has gradually been accepted. In a recent publication BCG's Henderson Institute noted that the word "ecosystem" appears 13 times more often in annual reports than it did 15 years ago.

Through our in-depth case studies and discussions with many executives we quickly came to the conclusion that all organisations operate in one or multiple ecosystems – even if perhaps unconsciously.

In order to create new customer solutions, the challenge for most organisations is how to give leadership to these ecosystems to help them innovate and to create and deliver value in the face of increasing volatility and uncertainty.

In our forthcoming book (De Meyer A and PJ Williamson, 2020, *Ecosystem Edge: Sustaining Competitiveness in the Face of Disruption*, Stanford Business Press. See also: www.ecosystemedge.com) we argue that the leaders of such ecosystems can benefit from joint learning with other partners in the ecosystem and the flexibility that such a relatively loose collaboration enables.

But we did not want to stop with advocating the concept. We realised that we needed to help companies understand how they could nurture and guide the development of these ecosystems, while deriving benefits for their own growth and bottom line.

It is, of course, impossible to summarise all of this guidance here but we want to share some key ingredients for how to do it.

It all starts with discovering the value that the ecosystem can create beyond that which each of the individual partners could generate alone. When Dassault Systemes wanted to extend its PLM software into other industries it needed partners who had a deep understanding of those industries. Dassault had accumulated a huge stock of knowledge of the algorithms needed to model and simulate products or experiences but it needed this deep understanding of expertise in sectors such as fashion, mining, pharmaceuticals and city planning.

In each of these cases it built ecosystems with relevant players in these industries and with suppliers of very specialised technological knowledge.

ARM, meanwhile, built its ecosystem by drawing in chip designers and fabricators such as TSMC, original equipment manufacturers such as Apple and Samsung and application software developers. By working with these partners it was able to develop chip designs with the optimum combination of functionality, low power consumptions and cost competitiveness, enabling it to become a de facto global standard in the industry.

We also noticed that effective ecosystem leaders relentlessly pursue the goal of maximising the overall value created by the ecosystem, as opposed to trying to capture a bigger share of the potential profit pools. They understood that growing the pie was more important than how the pie was carved up. And they also promoted the discovery of new customer value through initiatives that improved the quality of interactions between partners in the ecosystem.

To kick-start such an ecosystem will require an ecosystem leader to demonstrate a real belief in the concept and that it will not squeeze it dry once it begins to thrive. As an ecosystem leader you need to build up your credibility as the nurturer and guardian of the ecosystem's health. And you need to attract new partners by communicating in simple terms the value of joining the ecosystem, clarifying the expectations of partners, providing a technological and business roadmap for newcomers to guide their investments, and lowering the barriers to entry.

Many companies we spoke to bought into the potential benefits of building an ecosystem but also asked whether it would not become a drain on their resources and whether they would be surrendering too much value and potential profit. But don't forget that the power of an ecosystem is that it can magnify the overall profit potential (the size of the pie) many times over. A smaller share of something huge will always be more attractive than capturing 100% of a peppercorn.

But, of course, you need to monetise your contribution to the ecosystem. You want to avoid falling into the trap that IBM's personal computer business descended into in the 1980s when, despite creating a huge ecosystem around the IBM PC together with Microsoft and Intel, it was not able to profit from it.

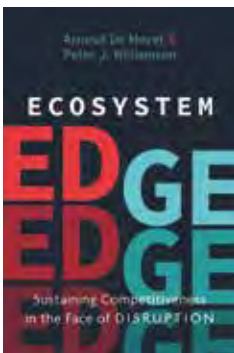
Therefore it is important that you identify a "keystone"-- some activity or key component of the product that you can own and control and on which the ecosystem's ability to create value for the customers depend.

Once you control such a keystone you need to set up "tollgates" to collect revenues from it. Tollgates may take the form of license fees,



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royalties or transaction fees, sales of value-added services or the use of data collected from the ecosystem to create new profit streams.

In the case of Alibaba, we were impressed how this company was able to let many of its partners develop profitable solutions for those who used its platform to sell their products while not encroaching on these partners' source of profits. Alibaba achieved this by focusing on their keystone: the control over the data of the hundreds of millions of customers and companies using the platform. It was this data and knowledge that enabled them to develop very large and profitable tollgate applications such as Alipay or Ant Financial.

For those wishing to develop and lead an ecosystem to create new customer solutions, a final point to keep in mind is that a very different type of leadership is required. We realised that leaders of ecosystems must have the charisma and credibility to lead beyond their own organisation, to embrace diversity and dilemmas, while developing an overarching identity for the ecosystem.

They must be able to listen to weak signals, to nudge the ecosystem to respond flexibly to uncertainty, to use soft power based on credibility and respect to influence partners, and above all to collaborate to create new value through solutions for the end customer.

Ecosystems have come back with a bang. We hope you will be prepared to implement them as an effective way to develop new customer solutions!



About the Authors

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