Strategic Management Center

Virtual Members Meeting

18th March 2021

Minutes of Meeting

In attendance:

Paul Barrett	Babcock
Tom Ford	Rolls Royce
Yitzchak Grant	D S Smith
Florian Hotz	Helvetia
Gavin Jackson	Babcock
Marjolein Lem	D S Smith
Nick Lawson	BP
Alex Manisty	D S Smith
Patrick Scherrer	Helvetia
Clara Semal	National Grid

From the Strategic Management Center:

Stephen Bungay
Neil Monnery
Jo Whitehead

Peter Williamson: Gaining the Ecosystem Edge

Our guest speaker was Professor Peter Williamson, an expert on Asia and China, who has held positions as LBS, Harvard and INSEAD and is currently Professor of International Management at the University of Cambridge Judge Business School. The material Peter presented was based on his latest book, co-authored with Arnoud De Meyer, called *Ecosystem Edge – Sustaining Competitiveness in the Face of Disruption* (Stanford University Press 2020).

Peter devoted the first half of the meeting to discussing what ecosystems are and under what circumstances they can create value, and the second half to what you have to do to lead one effectively.

Forming an ecosystem can be a way forward if the capabilities you need do not lie entirely within your own organisation. In an uncertain world in which complex customer-driven solutions have become more common and the costs of communication are falling, ecosystems can offer a solution which combines the advantages of integrated firms and free markets. They are a sort of managed, co-operative market rather than a free, competitive one, which under the right

circumstances can facilitate rapid innovation, unlock new sources of value and allow organic flexibility. It is uncertainty and learning that make them attractive. Without them, a supply chain would be more efficient.

Ecosystems are not new. They were first defined as far back as 1993 in an HBR article by J. H. Moore who called them 'a network of organisations and individuals that co-evolve capabilities and roles and align their investments so as to create additional value and/or improve their efficiency'. In the 1990's they did not attract much attention, but now their time seems to have come because they offer solutions to dilemmas which have become widespread. They allow each organisation to focus on what it does best but still meet rising customer demands; facilitate faster innovation by tapping into more ideas; and offer increased agility by harnessing the power of a large, dynamic and partly self-organising network.

Whilst elements of competition between member firms continue to exist, ecosystems are predominantly co-operative entities. In the absence of a single-firm hierarchy, they replace control with co-evolution and imposed requirements with mutual alignment. They do have leaders, but their role is to nudge and catalyse rather than direct.

Ecosystems are particularly useful when you have a sense of where value lies, or could lie, but you cannot identify it precisely, and unlocking it requires combining diverse capabilities in order to learn. The learning process implies that ecosystems are not static but continually reconfigure themselves. Mature ecosystems are distinct from pure platforms with two-sided markets like Apple's app store or Amazon's e-commerce platform. Amazon Web Services is a true ecosystem because there is a lot of interaction around the platform between the partners. Only fully-fledged ecosystems with the right leadership can deliver the important benefits.

However, creating successful ecosystems is not easy, and there are some sacrifices to be made. For example, they can offer network economies, but are less likely to result in internal economies of scale. Revenue from customers has to be shared among all the members of the ecosystem, so there is some loss of value capture for each of them. In practice, the biggest challenge is giving up control and replacing it with influence. The change in attitude this requires is probably similar to that faced by a typical executive of the 1950's when told that his company needed a strategy. The assumption at the time was that because no-one could control a market you were at the mercy of market forces. Today, it seems obvious that although a strategy does not allow you to control a market, it does allow you to influence and shape it. The same is true of the ecosystem around your company.

Peter and his co-researcher studied a wide range of industries to work out how to develop an ecosystem. He chose to illustrate how one works by taking the example of the specialist semiconductor design company ARM, founded in Cambridge in 1990 as Advanced RISC Machines Ltd. Despite starting with very limited resources and employing only a few thousand people worldwide, in 2016 ARM was bought for $32bn by Japan's Softbank, which in 2020 agreed to sell it to NVIDIA for $40bn. In an industry usually requiring huge capital investments, ARM has made itself so valuable by building a very successful ecosystem.

It did so more or less by accident. Its CEO, Robin Saxby, announced the goal of becoming 'the global standard for RISC chips' and set a target of embedding its designs into 100 million chips within ten years. It was perfectly clear that this was not achievable with the resources available, so ARM had to co-operate with outside companies.

It took a chip designed for Texas Instruments to its customer's customer, Nokia, which rejected the design as inadequate. Instead of trying again, ARM realised that Nokia understood what the product had to do, so began working with them as well as TI to together develop a product which delivered the necessary performance at acceptable cost. Nokia knew what it needed to serve the end-user, TI knew about how to interface with its signal processing technology and manufacture efficiently, and ARM provided the design. The final result created new customer value – better functionality and longer battery life - and also new value for the partners. Nokia had a more competitive product, TI sold more chips and ARM had additional revenue from licence fees and royalties. Over time, the ecosystem grew. Today, over 150 billion chips contain ARM IP.

At this point, Peter invited Members to discuss how they might leverage an ecosystem to develop new value propositions which they could not deliver on their own.

One Member asked how you can get a value proposition going when you don't know what it is. Peter replied that you need to identify your 'keystone' – some element or activity that you can own and control and which the ecosystem needs in order to create value. It is similar to a critical resource or capability which is valuable, rare, hard to copy, and non-substitutable, and can therefore form the basis of a strategy. You would then think through what other partners you would need who can provide other, complementary capabilities. You do not need to know the precise end-point in order to get going.

One Member has been trying to find ways of adding new customer value. They currently sell boxes, but have data about their customers' customers which has potential value. The immediate problem is that the only people they currently know at their customers are buyers and they are viewed simply as sellers of boxes.

Peter suggested that to get going they needed to identify a 'foundation customer'. Foundation customers have three characteristics. Firstly, they must have an interest in changing the status quo, which means they are not typically market leaders, but perhaps #4, 5 or 6 in a market. Secondly, within them there must be an individual who is willing to work with outsiders. Thirdly, they must understand and accept that they will not have exclusivity, but that the innovation will be sold to others. Finding foundation customers is not easy. It is an evolutionary process that rarely happens all at once. Alibaba tried out six candidates before finding one.

Another Member looking for growth opportunities has identified the emerging market of sub-sea systems. They have a lot of experience in large submarines using proprietary technology, but these systems are much smaller and the MOD is encouraging the participation of SME's in open architecture systems. In light of this, the member company is considering being an integrator.

Peter responded that although it is good to be an orchestrator, it is hard to make money if that is all you are - you need a keystone as well. Furthermore, as the ecosystem ought to speed up innovation, you will need to think through how you will use the ecosystem to learn. Successful ecosystem leaders have been able to replenish their advantages through a positive spiral of learning as the system evolves.

To a final question about whether ecosystem success is primarily a function of size or quality, Peter quickly replied that the critical variable is quality.

After a break, the group returned to consider how to become a successful ecosystem leader.

To set up an ecosystem you have first to demonstrate commitment to it by investing either cash, time or both, or by sharing knowledge. You then need to identify and co-opt a foundation customer, as already described.

You then need a roadmap describing how you see the ecosystem developing. It should act as a common reference point for each partner and stop you from going round in circles. It sets a compass heading rather than determining the destination.

Along with a roadmap, you need a compelling value proposition for each partner which explains why they should join. Google Maps, for example, gives partners access to maps and functionality enabling them to create new applications which they can then test and launch with the 150 million users of Google World.

Problems will inevitably arise, so the leader must accept responsibility for helping partners to solve them. Leaders only need a close relationship with core partners, who should be encouraged to invest, but they also need peripheral partners in order to build scale. Leaders should be wary of free-riders and prepared to impose sanctions, but at the same time lower barriers to entry. Joining the ecosystem means agreeing to maintain standards and accepting standardised interfaces to reduce cost and encourage partners to share knowledge among themselves.

The most successful ecosystem leaders invest in ways that encourage others to invest as well. Apple would have had to spend billions to develop its own apps, but got others to spend their own money. Amazon sells its Echo hardware at a loss and gives away Alexa Voice Services, with the result that by 2020 partners had developed over 100,000 ‘Skills’ that deliver value to users.

The relationship between partners has to be carefully managed, especially the capture and sharing of knowledge within the ecosystem. The lead firm needs to set up channels to collect data and capture knowledge being generated by the ecosystem. Some of this data and knowledge it will share with partners (to help the ecosystem become more successful) and some of it the leader will be keep proprietary to give it power and value capture potential within the ecosystem. Likewise, some knowledge will be captured by one partner and some shared amongst all. Contracts can be used to protect IP, portals used for information exchange, and tacit knowledge can be codified to facilitate its exchange.

Ecosystems are not a zero-sum game, so the first step must be to focus on value creation, but to capture value and make money you need a keystone. That is the bit of the system you should have control over. But beyond that the key to success is influence, not control.

Several members have experience of ecosystems.

One Member organisation did not always take the lead, but took a quite deliberate decisions about whether to lead or participate. They built ecosystems around their core business. This observation raised the general issue of whether to lead or not.

Peter warned against confusing your own organisation about whether you wanted to lead the ecosystem or participate in it. The decisive question in determining whether or not to lead is how critical your own value proposition is relative to the overall value proposition of the ecosystem to customers. The more critical your contribution to the ecosystem's value proposition, the more likely you are to lead. The Member company could only handle two or three ecosystems because of resources constraints. Peter added that they are not a low investment option – they take up a lot of scarce people's time.

Another Member has found that the most difficult part of the ecosystem to run is that involving other parts of their own organisation, an experience endorsed by others. It is a big ask for the core business to deflect its attention from selling boxes to developing an unknown value proposition. The question constantly asked is "Where's the treasure?". Peter commented that the challenge was to convince the Board that you can create value by sharing it, and also that if you continue down the current path you will run out of road.

One member asked if partners can swap places or indeed displace the leader. Peter confirmed that as ecosystems are dynamic that can indeed happen because power shifts. For example, IBM lost leadership of its PC ecosystem to Microsoft and Intel because it did not really have a keystone.

The question then arose as to whether ecosystems compete with each other. Peter suggested that indeed, in many sectors competition is moving towards rivalry between ecosystems. Here first mover advantage is likely to be valuable, as is speed. Effective leaders give up control of the right things quickly. In the longer run it is a matter of how good you are at getting the ecosystem to invest and learn. The leader needs to monitor how much money partners are making, who is leaving and joining and so on.

As the meeting ended Peter offered to follow up with any Member who wanted to pursue the theme. He can be contacted at p.williamson@jbs.cam.ac.uk.

His book *Ecosystem Edge* can be found at https://www.amazon.co.uk/Ecosystem-Edge-Peter-J-Williamson/dp/1503610217/ref=pd_rhf_pe_p_img_1?_encoding=UTF8&psc=1&refRID=1FCJE61MGEZJ4W1TBNK6, and further information is available at https://ecosystemedge.com.

Future meetings

Our next Members Meeting is scheduled to take place virtually on 15th June 2021 when Rebecca Homkes and her guest Will Bunker will explore the twin themes of ideation and acting to learn in an uncertain world. Will is a serial entrepreneur and investor, and Members may remember his insightful contributions to our October 2018 Meeting.