LOGICAL DESIGN SOLUTIONS

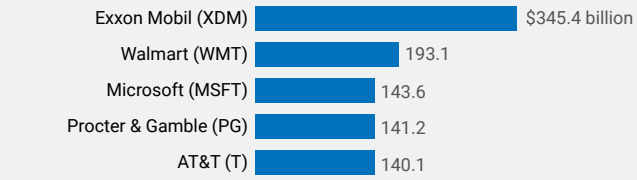
The Industry Leap from Vertical Markets to Ecosystems

An LDS white paper

The ways that people create value are changing, along with how work is organized. A central part of this shifting Industry Architecture[1] includes the transition from vertical markets to ecosystems. Evidence of this shift is well circulated,[2] attesting to platform-powered companies' ability to surpass giant enterprise organizations – rapidly outpacing them in revenue generation.

Then and Now

The five most valuable companies in the U.S. market at the end of February 2009:



The five most valuable U.S. companies as of August 17, 2018:

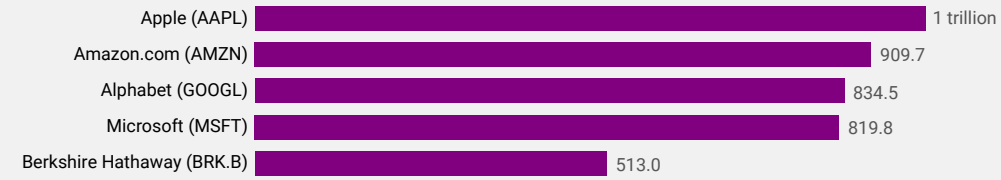


Figure 1.[3]

As the landscape changes, we can create new value out of business ecosystems. Coined by James Moore in the 1990s,[4] "business ecosystem" applied to business strategy as a way of seeing the economic community of interactions in more productive and creative ways. Only recently has the term "ecosystem" gained widespread traction, in the wake of digital transformation.

The changing industry achitecture sees businesses increasingly structured via platforms. Technology helps to orchestrate existing ecosystems in more efficient and scalable ways, so that they blur what were once considered impenetrable industry sectors. Value creation has shifted from owning the means of production to owning the means of connection, and some legacy and asset-heavy organizations are keeping up effectively, such as Siemens with its MindSphere.[5] These businesses have realized the power of IoT to generate new value by mobilizing the assets they already own as a service. Ford, for example, has shifted its focus away from its products to become a mobility company, providing access to a network of smart vehicles connected in smart cities using platform technology.[6]

To make smart decisions about the changing landscape in which businesses participate, they first have to understand what ecosystems are and where the opportunities and challenges lie. As ecosystems evolve, the metaphor of being at the top of the food chain is becoming obsolete. New structures abound, and old competition hierarchies are giving way to new dynamic partnerships. We want to highlight the factors to be aware of in the shift from vertical markets to ecosystems, focusing on the relevant implications for business leaders as they forge new paths in the digital revolution.

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The task of transforming an enterprise’s entire economic structure with new business models seems like an overwhelming, all-or-nothing commitment. But, undeniably the changing industry architecture will require business models to keep up and even anticipate how dramatically the rules of value creation are being rewritten.

No matter where their starting points, businesses will need to clarify the value that they extract from and provide to ecosystems, possibly in iterative ways and to different degrees. That effort may involve uncovering new value by mobilizing underutilized assets and resources within business ecosystems they already engage. Or it may involve designing or participating in entirely new ecosystems powered by digital platforms. At the organizational level, digital transformation means the transformation of structural relationships.

History: from vertical markets to ecosystems

Just as Klaus Schwab coined the term “the 4th Industrial Revolution,” CEOs started acknowledging a lag in growth and productivity, despite an increase in technology spending. In 2016, GE reflected precisely this problem in their commercial series about “Owen.”[7] These ads were more a statement of who they wanted to be associated with than a definition of a new growth strategy or business model in a growing digital economy. Businesses wanted to become digital but didn’t know how beyond standing up siloed technology solutions. Today, the ecosystem infrastructure is making it difficult to avoid the changing tides in business models.

Vertical markets were organized by supply and demand for goods and services, captured in isolated channels, and greatly contributed to our standard of living.[8] In this model, competition arose from new businesses that threatened substitution. Vertical markets have long underpinned economic measures and regulatory policies. In vertical markets, a firm

determined what "labor" it had to offer to extract maximum value. Vertical markets allow financial markets to measure the value and performance of a firm relative to its peers. Regulators are able to maintain a healthy competition and equanimity of labor for societal benefit.

Now, as business models integrate broad and open ecosystems powered by digital platforms, regulators struggle to catch up — particularly around data privacy. But successful digital natives and giants of today did not fit in any vertical, even at their beginnings. The disruptions caused by Amazon to retail, by Netflix to the television and film industry, by Facebook to media are all everyday results of innovations breaking down sector boundaries with new, open business landscapes. Instead of creating barriers for competitors, digital natives took advantage of frictionless entry and allowed participation from niche suppliers to serve unique needs of the customer in long-tail markets. Digital made the economic playground more horizontal than vertical. These companies succeeded in creating ecosystems around their platforms, where resources without ownership are abundant.

Vertical Markets	vs.	Ecosystem Markets
Competition among firms for resources and value extraction		Cooperation among firms for value exchange and collaborative learning
Supply-side economies of scale contribute to market dominance		Demand-side economies of scope determine breadth of participation and ecosystem dominance
Suppliers-customers connected in linear value chains		Suppliers and customers connected in peer-to-peer value networks
Performance measured by economic rent extraction		Performance measured by network effect and combined learnability across participants
Trust enforced by industry specific centralized and regulated brokers		Trust brokered via decentralized digital counterparts (regulatory impacts yet to be determined)

Need-to-know features of ecosystems

Firms that have perfected their business models to compete in their vertical markets will need to make strategic choices for their ecosystem play. There are some features of ecosystems that they will need to know. Ecosystems describe structures defined by complementary relationships that differ from the complementary relationships governing supply and demand. In an ecosystem, supply becomes as decentralized as demand, potentially coming from various sources. Ecosystems, then, require the orchestration of complementary innovations, products, or services belonging to different industries.[9]

The ecosystem movement not only includes examples of firms complementing their traditional business model with an ecosystem play, such as P&G's Connect & Develop open innovation ecosystem. This movement also includes digital native platform firms perfected their role as ecosystem drivers, now adding traditional outlets (as Amazon did with Whole Foods stores) to create a more omni-channel experience with customers. With emerging technology such as IoT, firms can choose to make more than one ecosystem play. They can start out as modular producers that can create and extract value across multiple, sometimes overlapping

ecosystems that enable human needs and life experiences (such as Smart Home, Smart City, Connected Car, or Connected Health). [10]

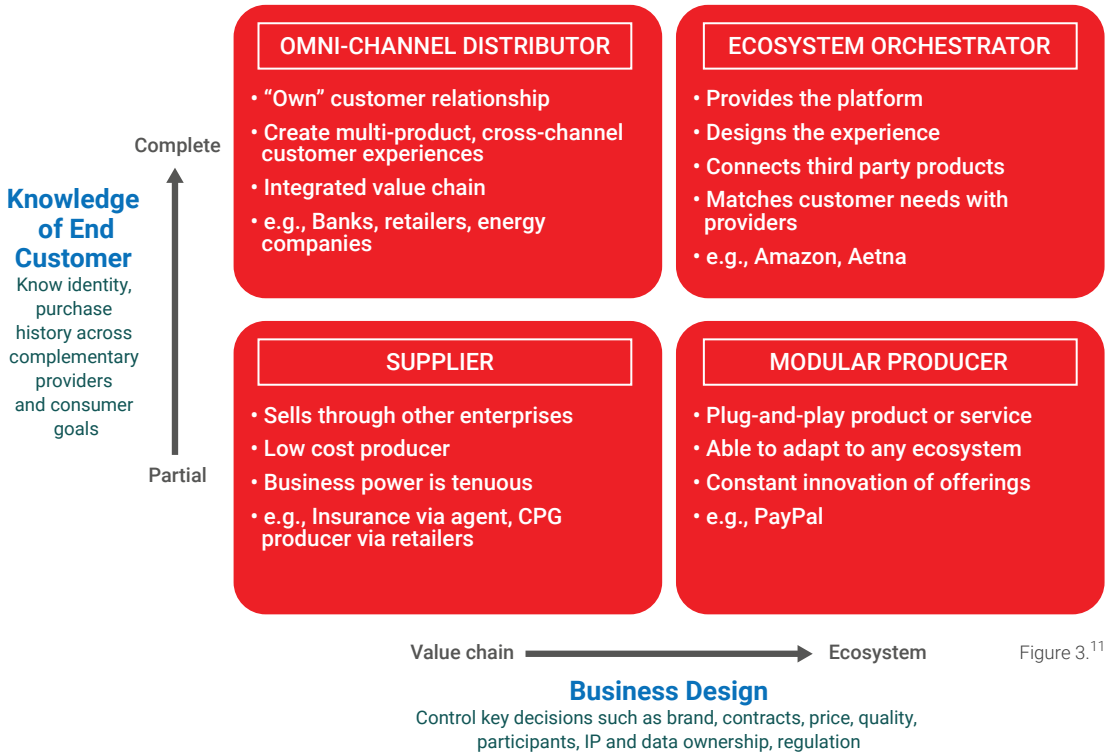

Figure 3.[11]

The roles that firms play in various ecosystems will inform the nature of the relationships they develop within each ecosystem (see Figure 3). Ultimately, they will need to be mindful of the risks and opportunities that arise when ecosystems overlap. Whether customers decide Apple or Microsoft, iOS or Android, has always been influenced by the breadth of app partners and players offered on each system. Now they have largely overlapping ecosystems, but that wasn't always the case – especially when they focused more on their product releases in vertical markets. What's more, their overlapping ecosystems have proven beneficial in their extensibility. But as ecosystems collide, converge, and connect, competition can develop at a completely different scale with massive consequences, particularly around mega-ecosystems and new risks around network monopolies.[12]

Key takeaways

1. Stay human-centered, but for better reasons. The old rule of thumb about supply and demand in vertical markets made sense at the time: supply must respond accordingly to what the market demands to turn a profit. But customer-centricity has changed. Now, customer engagement is operationally necessary for platforms to work. People need to want to use the experience platforms that businesses provide for the service to function in the first place. Consider how the experience will vary depending on how you choose to participate in the ecosystem, and with whom.

2. Maximize value from analytical insights and collaborative partnerships, not just from production. Here's another result of the shift away from vertical markets – having a strong product often won't be enough. Service-enabled business assets maximize value through the analytical insights they can offer. Consider GE's turn towards their scalable, data-rich industrial IoT platform.[13] The scale of its ecosystem requires a robust list of strategic partners to render its platform operational.[14]

3. Strategically define the roles you want to engage within the ecosystem. Intentionally defined roles are crucial to the success of ecosystems. Know that the narrower the roles are, the more aligned they are but the more difficult they are to recruit. Conversely, the greater the participant variety, the more difficult to align but the easier to recruit. For example, ride-sharing apps that are exclusive to female-identified drivers and riders may have more aligned behaviors to increase participant safety, but their ecosystem doesn't have the breadth of Lyft's, so recruitment is a challenge.

4. Explore new and unexpected ways people can participate. People bring context, individual experience, and expertise to the ecosystem. In organizational ecosystems especially, critical mass is almost always a given, so ask how you can put people's attention and energy to better use.

5. Shift strategy to activate dormant assets and relationships. Underutilized assets and resources weigh down enterprise organizations as they grow in complexity. But that is about to change. Inside organizations especially envision new knowledge and experience networks to enable value creation.

Conclusion: the leap

Several factors require consideration as businesses turn toward new kinds of ecosystem participation. The takeaways make the first steps explicit. Clarify what kind of ecosystem player you want to be: the hub, a complementary participant, or a partner. Determine what value you want to create. In the short term, businesses can unlock assets, as Siemens' MindSphere did. In the long term, they can develop new and unexpected relationships as ecosystems continue to grow, collide, and overlap.

Most importantly, however, the leap to ecosystem participation and design is a change of mindset. From now on, business leaders must acquire different notions of participation, recruitment (conversion), and competition in order to see potential in new places, not just in the product for the end customer, but the value from new relationships.

Sources:
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