HARVEY NASH / KPMG CIO SURVEY 2017

NAVIGATING UNCERTAINTY

HARVEY NASH
The Power of Talent

KPMG

Digital ecosystem business models are consolidating – move quickly!

Over 600 respondents to the Harvey Nash / KPMG CIO Survey provided additional information, including company name, to take part in further analysis by Massachusetts Institute of Technology Center for Information Systems Research. MIT CISR is one of the world's leading IT research organisations.

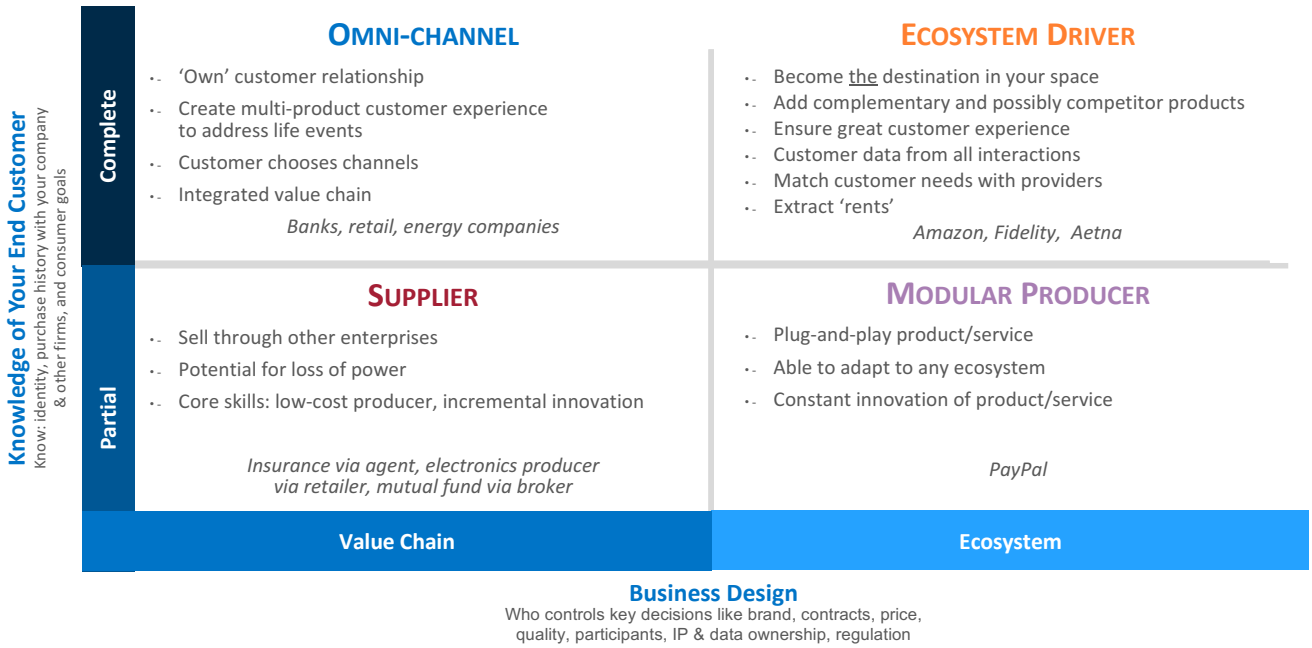
At MIT CISR, as we study how enterprises are transforming themselves with digital technologies, we are beginning to see industry consolidation. There is an emerging consensus among economists that two likely key causes of consolidation – mergers and technology – are significantly weakening competition in two-thirds of industries. As your enterprise reinvents itself in the digital era, often by pursuing a different business model, we think you need to make investments in your business that quickly create opportunities, because it seems there is a significant first mover advantage for enterprises that are transforming. In this piece, we will describe four business models for the digital economy. Using the 2017 Harvey Nash / KPMG CIO Survey data, we show the current distribution of business models (and compare it with the distribution in 2013) and glean insights about the capabilities that each business model needs to be successful.

Options for the next-generation enterprise

To understand the impact of digitisation on the next-generation enterprise, we talked to 144 senior executives and asked them to describe their most important digitally enabled breakthrough projects. We found that leaders had to make two choices as they design the next-generation enterprise – the business design and their relationship with the end customer (see Figure 1).

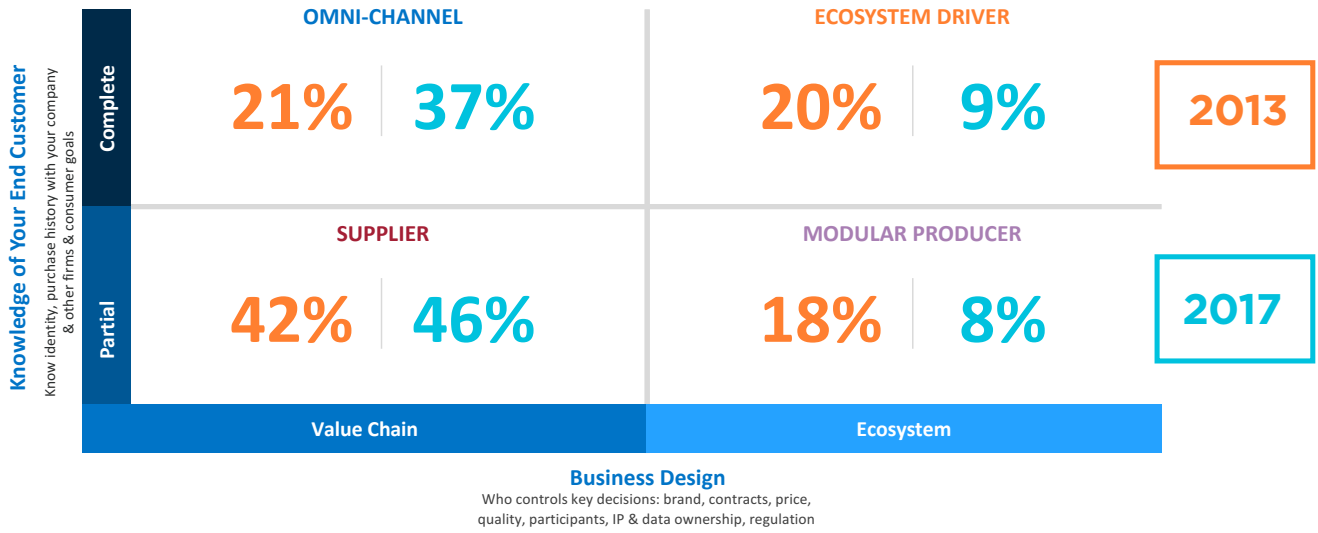
The horizontal axis of the 2x2 is the business design, with value chain and ecosystem as the options. Value chain models, popularised by Michael Porter in the 1980s, were implemented successfully by many enterprises, including Walmart, Procter & Gamble, ExxonMobil and most banks and retailers. Digitisation is enabling a different kind of model that we call a digital business ecosystem. We think of a digital

Figure 1. Options for the next-generation enterprise



P. Weill & S. L. Woerner, "Thriving in an Increasingly Digital Ecosystem", *MIT Sloan Management Review*, Summer 2015, Vol. 56, No. 4, pp. 27-34, 16 June 2015.
P. Weill & S. L. Woerner, *The Next Generation Enterprise: Transforming for a Digital Economy*, Harvard Business School Press, forthcoming 2017.

Figure 2. Percentage of companies by dominant model



P. Weill & S. Woerner, "Thriving in an Increasingly Digital Ecosystem," *MIT Sloan Management Review*, Summer 2015, Vol. 56, No. 4, pp. 27-34, 16 June 2015.
P. Weill & S. Woerner, *The Next Generation Enterprise: Transforming for a Digital Economy*. Harvard Business School Press, forthcoming 2017.

business ecosystem as a co-ordinated network of enterprises, devices and customers that creates value for all participants. There is typically a single enterprise in a particular space – such as shopping (Amazon), healthcare (Aetna), technology (Microsoft), industrial internet (GE) and wealth management (Fidelity) – driving the ecosystem and attracting customers.

The vertical axis is the depth of knowledge of your end customer. Deep knowledge of the end customer enables your enterprise to make more attractive offers and increase customer engagement. For example, how well do you know your end customer and their key life events? Can you make offers to help customers negotiate those life events? For B2C customers, life events include moving house, buying a car, getting married, having a child and saving for retirement. For B2B customers, life events include opening a new store, launching a new product and conducting a major advertising campaign.

The combination of the two dimensions leads to four possible business models. We observe all four as viable business models today, each with distinct opportunities and challenges. Many firms have revenues from several of the models.

- Suppliers have at best a partial knowledge of their end customer, and typically operate in the value chain of another, more powerful, enterprise. A company like Procter & Gamble is an example of a supplier (selling through retailers rather than direct to the customer, thus not collecting end customer data), though P&G is taking steps – through B2C websites like pampers.com, sentiment analysis and test-and-learn initiatives – to learn more about, and increase engagement with, its end customers.
- Omni-channel businesses provide customers access to their products across multiple channels, including physical and digital channels, allowing the customer to move seamlessly across channels while providing a superior customer experience. We see many banks, telecommunications companies and retail enterprises working hard towards this model.
- Modular producers provide plug-and-play products or services that can adapt to any number of ecosystems. To survive, they have to be one of the best service providers of their core activity (like payments). To thrive, they must constantly innovate their products and services, ensuring they're among the best options available and at the right price. PayPal is an example of a modular producer – its payment system can be used by almost any enterprise and individual, globally.
- Ecosystem drivers want to become the destination for a subset of their customers in their space. They provide a platform for the participants to do business that can be more (e.g. Google) or less (e.g. Apple) open. They leverage their brand to attract participants, ensure a great customer experience and offer one-stop shopping providing their own products, complementary products and sometimes competitor products. An ecosystem driver is typically the only enterprise in the ecosystem that sees all the data and uses the insights to make the destination increasingly attractive.

How the competitive landscaped has evolved

In 2013, we measured the distribution of firms' dominant models (calculated by source of revenue and depth of customer knowledge) across the four business models. We found suppliers were 42 per cent, omni-channel 21 per cent, modular producers 18 per cent and ecosystem drivers 20 per cent of enterprises (see Figure 2). Customers had many choices as to which enterprise was their go-to company for banking, travel, shopping, entertainment, etc. And over half of these ecosystem drivers were small enterprises, often start-ups, trying to create a blockbuster business.

In the intervening five years, we have seen a consolidation (i.e. a Darwinian shaking out) of ecosystem drivers and modular producers, the successful ones growing rapidly and the others failing and often disappearing (or being acquired). These two ecosystem business models – which rely on having great platforms – have decreased to 9 per cent (ecosystem drivers) and 8 per cent (modular producers). The other enterprises are focusing on learning about their end customers as the number of omni-channel businesses has increased to 37 per cent (from 21 per cent). The percentage of suppliers is up a little to 46 per cent.

Customers are voting with their mobile devices and are choosing from a handful of dominant ecosystem drivers for each domain in their lives – which, in turn, increases those ecosystem driver enterprises' power in the marketplace. An example of this consolidation is the continuing rise of Amazon. Amazon accounted for 43 per cent of all online retail revenue last year and 20 per cent of all US consumers are Prime members.[1] Even more telling, 55 per cent of US consumers begin their product searches at Amazon.[2] Amazon has supplied Dash buttons that can be put anywhere in the house so customers can make one-click purchases of products they are running out of without going online. Alexa, the Amazon voice-activated assistant, can tell you the weather, stream music and take orders for products, and that's just a start. And Amazon is even experimenting with physical stores and perfecting the technology. Its Amazon Go store allows customers with the app to go in, pick up food and leave, paying electronically and never having to queue for the cashier.

Capabilities to develop

In addition to customers frequenting a smaller number of dominant players, there's another factor at work. Becoming a successful ecosystem driver isn't easy and requires a long list of world-class capabilities. We analysed the survey data to understand which capabilities were needed for each business model (see Figure 3). Suppliers, because they sell through other enterprises, must be skilled at managing costs as price is a key factor for success in a world where search is easy. Robotics and automation are a key capability for keeping costs down.

Omni-channel businesses must continue to learn about their customers, create a seamless customer experience and maintain a stream of new products and

Figure 3. Which capabilities are key for the models?

	Supplier	Omni channel	Modular producer	Ecosystem driver
Fostering innovation				✔
Aligning governance				✔
Selecting appropriate architecture*		✔		✔
Managing risk and security				✔
Using data and analytics effectively				✔
Using partnerships*		✔	✔	✔
Integrating new digital solutions with core business		✔		✔
Using digital to advance business strategy				✔
Leveraging test-and-learn (quick about shutting down projects)*		✔	✔	
Investing in Platform as a Service				✔
Investing in robotic automation	✔			

* Analysis is significant at the p<0.1 level, all other analyses are significant at the p<0.05 level.

1. www.businessinsider.com/amazon-accounts-for-43-of-us-online-retail-sales-2017-2
2. https://www.bloomberg.com/news/articles/2016-09-27/more-than-50-of-shoppers-turn-first-to-amazon-in-product-search

services to keep customers engaged. In an increasingly digital economy, test-and-learn capabilities like A/B testing, figuring out which offers will work best, are key to learning about customers. Architecture matters when customers expect to use one channel just as easily as another or even move between channels during a single transaction. Easily integrating new digital solutions is key to maintaining customer engagement and buzz.

A modular producer needs to be able to plug into any enterprise's platform to succeed and investing in partnerships, often consummated digitally, is the primary way to access new opportunities. For example, having an easy-to-use, easily accessible API set is an important component to building a successful partnership. Modular producers also have to constantly innovate to add capabilities in order to stay ahead of what often becomes a commodity business. Test-and-learn capabilities become critical to deciding which new offers are worthwhile and will extend reach.

Becoming an ecosystem driver requires being good at a wide variety of capabilities, almost everything that modular producers and omni-channel businesses have to do and more. Perhaps this is why consolidation has occurred so quickly. Building a platform that customers want to interact with, and partners and suppliers want to do business on, is the most important capability. Platform as a Service is one way for an enterprise to get up and running as an ecosystem driver. But it's not enough. An ecosystem driver has to have great customer data and the ability to protect that data. Digital capabilities are key to its strategy and success, and there is a need for constant innovation to engage customers and partners. An ecosystem driver model has a lot of moving parts so a robust digital governance model that continually enhances, rather than fragments, the platform is key.

The CIO plays a key role in creating and reusing all these key capabilities. The survey results show that the CIO is becoming more strategic, no matter which model(s) the enterprise uses. Effective CIOs are increasingly partnering with other executives and influencing the executive committee, often helping choose which model(s) are best for the enterprise, particularly around the decision of what is realistic. CIOs in all of the models are meeting regularly with their boards – somewhere between every three and six months – with discussions focused in areas such as strategy (i.e. which model), reporting (i.e. progress being made) and defensive (i.e. cyber, privacy and compliance).

If the trend we have identified here continues, we will see customers identifying the go-to enterprise in each of their life spaces (like healthcare, education, entertainment, etc.). This will lead to further technology-enabled consolidations as a few firms will become very powerful ecosystem drivers – effectively intermediating between the end customer and the service provider. We think this consolidation has so far largely been a consequence of first mover advantage. How will you compete in this environment? Which model(s) are you today? And how do you start building capabilities now to move to another model? This is a fundamental conversation for the CIO to lead among his or her enterprise's management team. And the sooner the better.

Stephanie L. Woerner
Research Scientist, MIT Sloan School of Management's Center for Information Systems Research.

Peter Weill
Chairman and Senior Research Scientist, MIT Sloan School of Management's Center for Information Systems Research.