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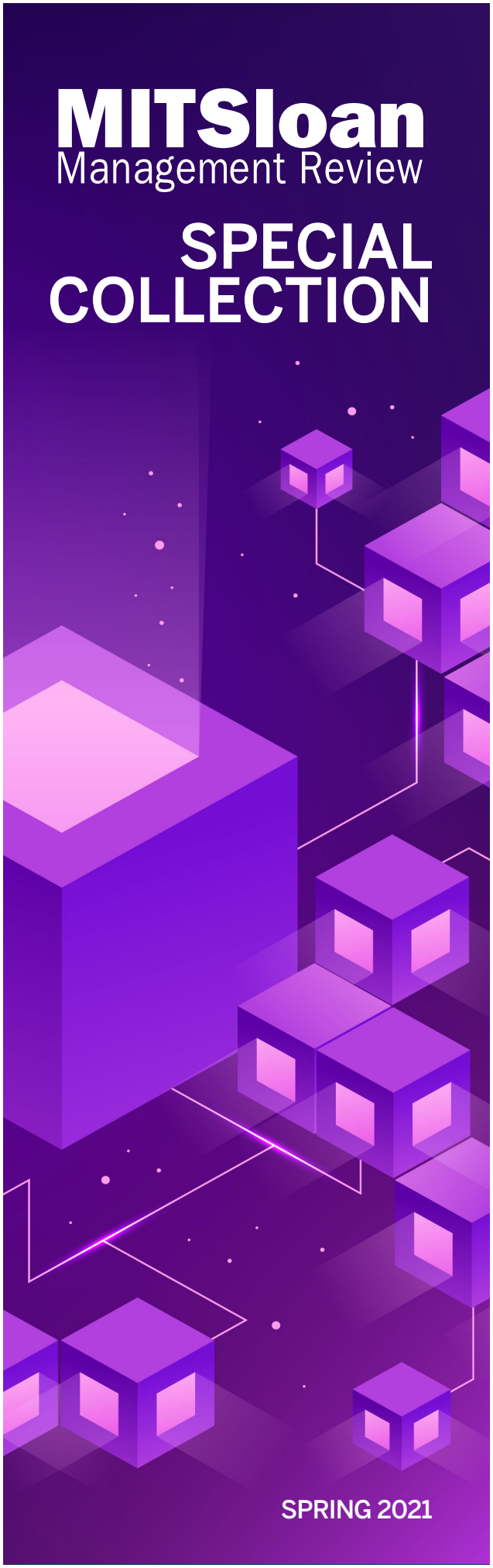


SPRING 2021

STRATEGY

New Strategies for the Platform Economy

To reap the rewards and avoid the risks, companies exploring a platform business model must look carefully at their partnerships and growth strategy.

NEW STRATEGIES FOR THE PLATFORM ECONOMY

SPECIAL REPORT

THE DOMINANT DIGITAL PLATFORMS are now among the world's most valuable — and most powerful — companies, leaving a huge swath of organizations forced to play by their rules. In this new competitive environment, businesses need new ways to gain advantage despite platforms' constraints and market clout. And businesses seeking to *create* successful platform ecosystems find that while the rewards can be great, the likelihood of failure is high. This special report examines the challenges faced by both platform owners and participants.

The asymmetries in power and information between platform owners and the businesses reliant on them have implications for the traditional levers of competitive strategy, argue Donato Cutolo, Andrew Hargadon, and Martin Kenney. The authors show how the usual tools that businesses employ to differentiate their offerings and gain competitive advantage can be blunted by platform operators, and they suggest ways that businesses can better protect their interests. They also point to increasing attention from U.S. and European regulators, whose scrutiny of dominant platforms' practices may lead to shifts in the prevailing balance of power.

Given the rich rewards for developing a successful platform, it remains an attractive digital strategy, despite the high risk of failure in what has been typically a winner-takes-all game. Ulrich Pidun, Martin Reeves, and Edzard Wesselink analyzed more than 100 failed digital ecosystems and found that ecosystems typically develop over four phases. At each stage, there are specific early indicators to look for that point to potential failure. Tracking the appropriate metrics for each stage and being alert to red flags helps businesses pivot to a new approach or limit their losses.

Platforms aiming for market dominance have typically prioritized rapid growth. However, Max Büge and Pinar Ozcan have found that scaling quickly is not the right strategy in all circumstances: Pursuing fast growth in markets where regulatory risk and complexity are high can lead to setbacks or failure. With governments increasingly focused on investigating and reining in platforms' power, we may well see an increase in the number of markets with such challenging regulatory environments — and possibly a more cautious approach to platform expansion. ***— Elizabeth Heichler***

COMPETING ON PLATFORMS

Companies must find new competitive strategies to succeed on dominant internet platforms.

BY DONATO CUTOLO, ANDREW HARGADON, AND MARTIN KENNEY

The dominant online platform companies are now the most valuable companies in the world, and their growing power over other organizations is enabling them to rewrite the rules of business strategy.

In the past decade, digital platforms have profoundly reorganized markets and industries and redefined the dynamics of value creation and competition.[1] They have created marketplaces that have spawned an enormous number of platform-native startups.[2] And as these have grown and prospered, existing businesses have felt compelled to join the platform economy, viewing participation as necessary for growth and even survival.[3]

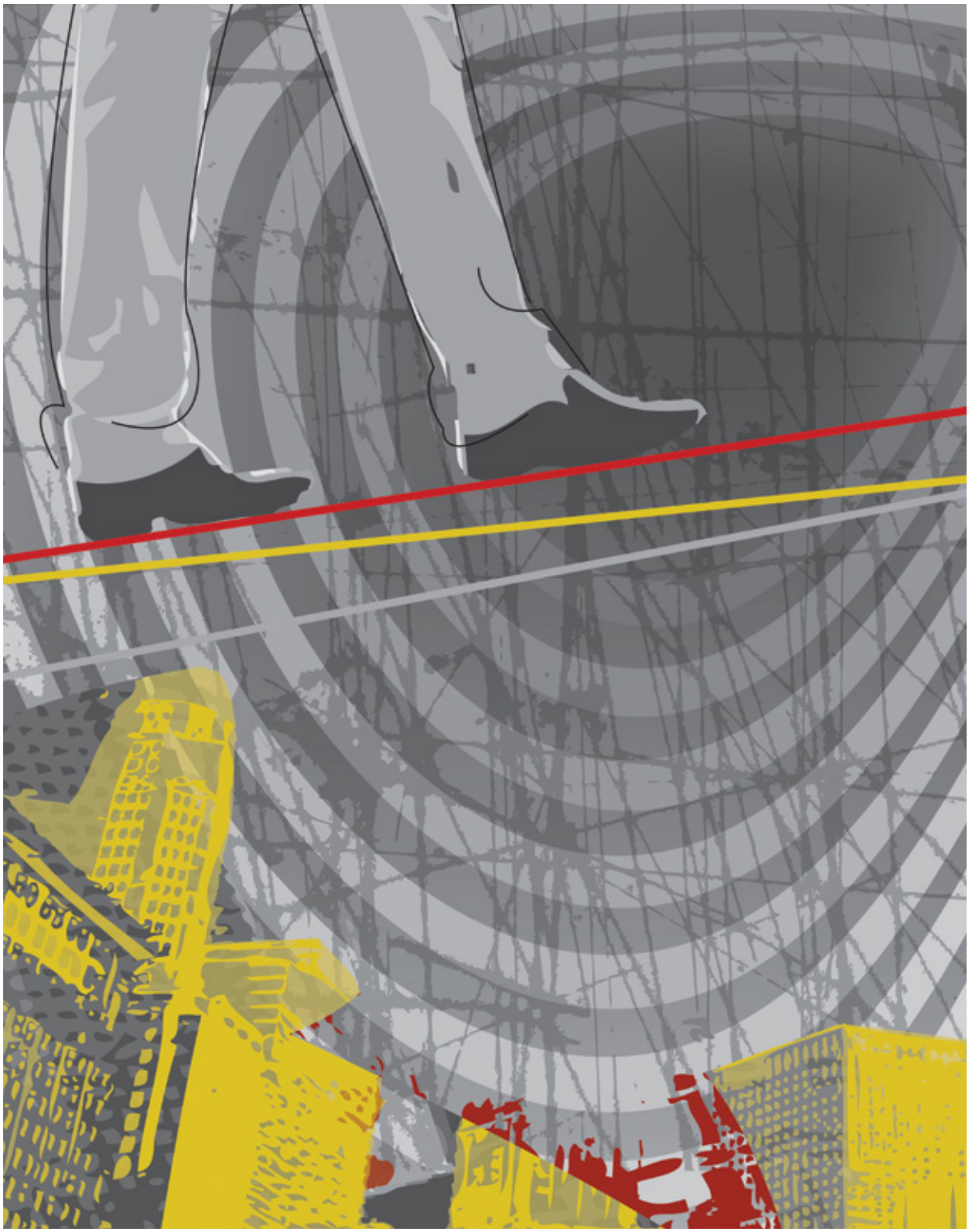
To date, most attention to platforms has focused on understanding their advantages over traditional industrial structures and how to replicate platform successes. However, the vast majority of companies will not own platforms but, rather, will increasingly depend and compete on them. To do so effectively, platform-dependent businesses must recognize the power dynamics and risks intrinsic to platform-controlled markets. And they must develop strategies that leverage a platform's resources while mitigating its power over them.

How Platform Power Is Transforming Competitive Strategy

In early January 2019, after sealing a deal with Apple to sell more of its products, Amazon sent a letter to small businesses selling refurbished Apple products on the Amazon e-commerce platform. It read, in part, "You are receiving this message because you are currently selling … Apple or Beats products. Your existing offers for those products will soon be removed from Amazon's online store in the United States."

As one reseller said, "Since 2011, I have sold over a million dollars of iPods on Amazon and this is going to severely impact me and my family."

For many resellers, the agreement between Amazon and Apple spelled the end of their businesses and livelihoods. And this



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THE RESEARCH

The authors drew upon in-depth discussions and interviews with entrepreneurs in the U.S. and Europe, and ongoing research into the rise of the platform economy and the impact of platforms on entrepreneurship.

Their work is also informed by engagements as advisers to businesses and investors on their platform strategies, and to government organizations on regulating the platform economy.

existential threat is not confined to small businesses. Discussing Google's ability to favor its own travel platform in search results, Expedia's CEO said the internet was "littered with the bodies of companies put out of business by Google."

This is a new, harsh competitive environment that nearly every business eventually will confront as the platform economy matures.[4]

An online platform's success is predicated upon providing sellers with a large base of potential customers while providing customers with a broad range of easily searchable offerings. For sellers and advertisers, entry costs are low. For buyers, there are none. The platform's goal is to capture the largest market share relative to other platforms — a winner-takes-all strategy that achieves a near-monopolistic position.

On these terms, a platform's success comes when it effectively owns the market and can "tax" all transactions that run through it. For example, Apple and

Google take 30% of all revenues earned in their app stores; Etsy takes 20 cents per item listed, as well as 5% of the transaction cost (including shipping), and fees from its payment-processing system (which sellers are required to use). YouTube takes 45% of the advertising revenue generated by its content creators. As game-maker Epic Systems argued in its recent legal complaints against Apple and Google, their fees are nonnegotiable, regardless of how much revenue flows through an app.[5] Other companies, including Spotify and even Microsoft, appear to be joining the criticism of the stringent rules that app store owners impose.

The fee controversy is only the tip of the iceberg. Platforms have almost godlike powers. They are gatekeeper, rule maker, judge, and jury. For businesses dependent on a platform, this creates a dangerous situation. The platform is motivated by traditional business goals: It wants to grow revenues and profits and increase its market power. Just as important, it is constantly experimenting and evolving unilaterally in ways that are beneficial to itself. The businesses transacting on it can only accept the platform's rules, adapt to them strategically, or exit.

In other words, a platform's power dramatically constrains the freedom businesses possess to devise and pursue competitive strategies. Since the 1980s, our understanding of strategy has been dominated by Michael Porter's definition of the sources of competitive advantage. To Porter, good competitive strategy creates unique value for a particular set of customers (in other words, differentiation). That uniqueness is derived from companies' ability to control three key sources of competitive advantage: a *distinctive value proposition* that is designed for a *particular set of customers* and is delivered through a *particular configuration of activities difficult for competitors to replicate*. The more ways in which an organization can differentiate its sales, services, features, production, distribution, design, and marketing, the greater its ability to establish and defend a strategic position.

But platform owners don't only reduce the degrees of freedom a company has over each of these sources of competitive advantage; at the same time, they advance their own interests.

For instance, the same reach that enables companies to find customers on Amazon enables the platform to recognize growth opportunities and quickly respond. According to a report from Coresight Research and DataWeave, Amazon more than tripled the number of its own house-brand products from 2018 to 2020, to more than 23,000 offerings that now compete with other products on the site. Amazon (and other platforms) can upend traditional forms of strategic differentiation simply by identifying and replicating product features, prices, market position, and whatever else can make its own products more competitive and attractive. And the same complex, often opaque, algorithms that connect online buyers and sellers can be massaged by platforms in ways that can produce sudden drops in sellers' search rankings and sales.

The Risks of Platform Dependence

Given increasing evidence that platforms are likely to use their enormous powers for their own benefit, businesses need a clear understanding of the implications of operating on a platform in order to avoid becoming subordinate entities.[6] Competing effectively in these markets requires businesses to recognize the ways platforms limit the control they have over the three sources of competitive advantage.

Platforms limit construction of a unique value proposition. Developing a company's value proposition and presenting it to a target customer segment is core to competitive strategy. But for many platform-dependent businesses, the unique attributes and presentation of their offerings online (such as search terms, product descriptions, images, and product reviews) are dictated by the platform, whose goal is to allow customers to compare competing offerings easily. This can happen only if products share common search terms and are presented to consumers in nearly identical ways.

Moreover, platforms can constrict strategic pricing flexibility. For example, Amazon punishes publishers on its Kindle platform selling at prices lower than $2.99 or higher than $9.99 by halving their revenues from 70% to 35% of the sales price.[7] In setting this rule, Amazon believed it could sell more e-books and, just as important, discourage other online booksellers from entering the market. While pleasing customers, this slashed publishers' margins.

Because the platform is always considering its own interests, it can and will take actions detrimental to the interests of its dependent businesses.

When one is dependent on a platform, existential uncertainty is endemic, exacerbated by the ever-present possibility that anything a platform-dependent business can do can be blocked instantly and without warning.

For example, Apple Music, Spotify, and YouTube create playlists that include artists contracted to multiple labels. These labels aren't happy about seeing their artists grouped with (and therefore promoting) another label's artists. Amazon can bundle products from as many vendors as it likes. Once that happens, and consumers see competing providers together on one screen, vendors are forced to compete within categories and segments they have no power to define. They must attempt to differentiate their offerings based on price (if they can), thin descriptions, and reviews (on an architecture determined by the platform) rather than their own strategic choices.

Platforms own the customer relationship. As the intermediary between the customer and the provider, the platform controls the relationship: The seller knows only what the platform wants it to know. In fact, most platforms actively prevent off-platform contact between buyers and sellers, because that would create the potential for disintermediation. Instead, the platform enforces a fundamental asymmetry in information about the customer in the platform's favor.

When one is dependent on a platform, existential uncertainty is endemic, exacerbated by the ever-present possibility that anything a platform-dependent business can do can be blocked instantly and without warning. For example, if a market participant is flagged for an alleged rule infraction — such as manipulating reviews — punishments can include suspension, delisting, or a ban. This happened to a multimillion-dollar weapons accessory business on Amazon that was temporarily suspended after a rival hacked the business's account and posted fake five-star reviews so it appeared that the seller had violated Amazon's rules against buying favorable reviews. According to the weapons business's owner, the estimated sales loss for the company during the suspension was about $150,000. Even when such decisions are reversed, businesses may have already suffered severe damage and have no recourse in an appeals process so capricious and opaque that one law firm called it "Kafkaesque."[8]

Platform-dependent businesses lose room to maneuver. Strategy theorists argue that when companies discover a profitable strategic fit, they maintain their position through a unique configuration of activities that deliver added value to a defined set of customers. The more freedom a company has in designing and configuring its activities to enhance the customer experience, the more defensible its market position becomes.

Competing on platforms creates a heightened risk that competitors will be able to imitate the superficial details of those activities, including product descriptions, price points, and targeting the same search terms. At the same time, a platform may favor some market participants over others, as Amazon did when it chose Apple over Apple resellers.

Benefiting from its godlike perch, the platform is well positioned to recognize when innovative products or services represent a business opportunity. The platform can then increase the commission it charges a seller or introduce a competing product itself. Recent research shows that Amazon is more likely to enter market segments created by its third-party sellers when those have proved successful.[9] In this sense, a platform may use its dependent businesses as test beds to identify promising markets the platform can appropriate.

In one instance, Amazon employees accessed data about a bestselling car-trunk organizer sold by a third-party vendor; that data included its total sales, how much it paid Amazon for marketing and shipping, and how much Amazon made on each sale. Amazon's private-label arm later introduced its own car-trunk organizer. Amazon denied that its employees examined specific data, but it's indisputable that Amazon possesses it.And it's indisputable that Amazon can feature its own competing products more prominently.[10]

After entering an attractive market first identified by a dependent business, a platform can use its search algorithms to point potential customers in the direction it prefers while adjusting its ranking algorithms to favor its own products or services. A recent analysis by *The New York Times*[11] discovered that Apple's App Store systematically promoted its own offerings and ranked them ahead of ecosystem incumbents that had made the App Store successful in the first place. Ultimately, direct competition with an omniscient and all-powerful platform makes it virtually impossible for an innovator to defend its position against a predatory platform partner.

Four Strategies for Thriving as a Platform-Dependent Business

Traditional assumptions about competitive strategy are no longer valid in platform-organized markets, and in this new competitive landscape, the strategies necessary for businesses to succeed have changed.

We've identified four strategies that companies can experiment with to leverage the resources the platform provides while mitigating the tendency to become subservient to it. Organizations may consider the following responses, depending on their singular situations and needs.

1. CHANGE CHANNELS. Multihoming is a way to change the power dynamic by offering products or services in multiple sales channels. The goal is to increase the business's access to customers while improving its ability to protect its value proposition and reducing its dependence on a single platform owner. Types of multihoming include the following:

Platform multihoming. Offering goods or services through multiple platforms can have significant benefits, especially when those platforms offer access to different customer segments. For instance, the success of Epic Games, the video game company behind Fortnite, shows that an early investment in cross-platform availability was key to growing a larger customer base. Although it launched in 2017 on Xbox One with limited cross-platform support, today it is available on Android, iOS, macOS, Microsoft Windows, Nintendo, and PlayStation.

In some instances, platform multihoming can be simple. Entrepreneurs selling commodity products on Amazon can easily and inexpensively list those same products on eBay, Etsy, or Walmart .com. Similarly, the cost to hotels of experimenting with different online travel agencies like Booking .com, Expedia.com, Hotels.com, and others is low. In contrast, porting apps from iOS to Android, or vice versa, can be difficult and expensive because the apps must be modified.

Multihoming does require effort and time because each platform requires customization. It also introduces the risk that a company may lose focus during the diversification process, thereby impairing its performance.[12]

Channel multihoming. Even platform-dependent businesses can use different channels, such as a proprietary website or a brick-and-mortar store. If alternate channels are successful, a business can not only avoid the fees and limitations of platform markets but also enhance its value proposition through unique offerings and stronger customer relations through perks like better service, loyalty programs, and promotions.

For example, online travel platforms prohibit hotels from offering lower prices on other channels or even on their own websites. But hotels can offer better cancellation policies or special packages (free spa treatments or tasting menus featuring regional foods, for example) that are not available through the platform. These types of special offerings can be promoted in various ways and delivered through owned channels such as a hotel's website or at the front desk. This approach can allow hotels to cultivate different subgroups of customers, develop

Offering goods or services through multiple platforms can have significant benefits, especially when those platforms offer access to different customer segments.

loyalty, and weaken the ties that bind them to the online travel platform.

But channel multihoming presents a dilemma: How can a business extract value from the platform channel without cannibalizing its other channels or, conversely, undermining its enormous platform traffic and business?

One response is to differentiate strategically and clearly between channels. For example, travel-book publishers have placed their high-demand products on the Kindle e-book platform but have sold their most profitable books through the physical print channel only, in hopes of attracting direct buyers and retaining the higher profit margins for themselves.[13]

Another strategy is to use channel multihoming to offer customers higher levels of customization. For instance, the U.K. company Chilly's Bottles sells reusable water bottles both on Amazon and on its website, but only the Chilly's Bottles website offers customers the opportunity to have bottles engraved with their name.

Platform multiplexing. Sellers and content providers can adopt the different tools available from various platforms to develop new value propositions, reach new customer segments, or build new organizational capabilities that would not be possible on any single platform. Companies can use different advertising platforms to experiment with the relevance, quality, or keywords associated with their offerings. They can also offer limited production runs via platforms such as Instagram or Kickstarter to test new products while finding new customer segments and boosting brand awareness. Both startups and established companies such as Coca-Cola, General Electric, Hasbro, and Lego have combined the momentum of multiple crowdfunding platforms to get low-cost and immediate feedback on new products or services. Some have registered sales even before production by using these platforms to promote projects and drive customer awareness.[14]

2. USE THE PLATFORM TO MARKET YOURSELF. Just as it has become necessary for businesses to transact on platforms, it is also critical for them to *market* on them. After all, 47% of consumers begin their online product searches on Amazon.[15]

Platforms ensure that a company's advertising will be seen by customers when they are in a buying mood, and they can give those businesses a bird's-eye view of customer activities and preferences that they can use to guide that advertising and make it more effective. However, while investing resources in platform advertising can boost revenue, that high-level view is not granular; the company purchasing the advertising receives only the information the platform chooses to share.

The business challenge is to develop marketing strategies that leverage the platform to strengthen one's own brand without increasing one's dependence on it. For example, Hootsuite, Marriot International, and Patagonia, among others, are using Instagram to promote their values and corporate cultures as much as (if not more than) their offerings. And platforms can be used to showcase new products and services before making large investments by testing marketing concepts through low-cost online advertising, launching free apps in app stores, or conducting low-volume experiments on Amazon. It is possible to leverage platforms in creative ways while mitigating lock-in or overdependence.

3. PLAY THE ALGORITHM GAME. Whether a business's goal is to raise its visibility, gain more reviews, or improve its search rankings, it's necessary to game the system of algorithms that govern the platform. That does not mean breaking rules but rather working them so they work for you. Many consulting businesses have emerged to help platform-dependent businesses leverage a platform's algorithms and regulations to improve customer engagement. They help them identify optimal days and times to post on particular platforms; they design product names, keywords, descriptions, and hashtags that will improve platform performance; and they create engaging presentations to make a company's goods and services stand out.

The line between what platforms deem legitimate or illegitimate is often blurry.[16] For example, some companies have hired people to produce laudatory reviews on Amazon, a practice forbidden under its terms and conditions. Recently, Amazon deleted approximately 20,000 putatively fake reviews from its U.K. website following a *Financial Times* report on such activities. However, people and companies are constantly testing such rules and sometimes develop new and effective tactics.

For example, specialized agencies have orchestrated "giveaways," through which platform-dependent businesses grow their Instagram followers by paying famous influencers for sponsorships, or even offering cash to new followers. In 2017, Domino's created an Instagram giveaway, offering people a chance to win $10,000 by following it and leaving a comment on the company's profile. The post received 25,564 views and more than 4,500 likes.

A platform's attitude toward this sort of gaming varies based on whether the activity threatens its power or degrades the user experience. For example, startup Rap Genius tried to game Google's algorithms by launching a program to promote its users' blog posts if those posts included references to the Rap Genius website. The result: Google manually demoted Rap Genius to the sixth page of its search results — a deliberate and targeted punishment.

4. DIVERSIFY INCOME STREAMS. Establishing a successful presence on a platform can produce an enormous volume of traffic that can be leveraged to diversify income streams. This diversification can take many forms. The first is simple product diversification on the platform. For example, Chinese electronics company Anker started selling replacement laptop batteries on Amazon in 2011 and became the most popular brand of portable battery packs on the platform. It then diversified into smartphones and wall chargers and now sells a wide variety of electronic accessories. Its success in building a strong brand enabled it to reach a level of customer awareness that mitigates the platform's leverage.

In other cases, alternative channels provide diversification opportunities. Many YouTubers, having established their reputations on the platform, now receive income from making personal appearances, endorsing products, publishing books, selling their own lines of clothing or makeup, and engaging in many other activities. Rovio Entertainment (creator of the video game Angry Birds) not only introduced in-app purchases and advertisements as additional revenue sources but also expanded into merchandising and entertainment with *The Angry Birds Movie*. As this illustrates, new revenue streams can be developed far outside the ambit of the platform and, if sufficiently lucrative, can allow the business to become less dependent on the platform upon which it was born.

Finding Your Balance on the Platform

Platform companies like Amazon and Google are among the most valuable businesses in the world for good reason: They are able to take a cut of an increasing share of the world's commerce. Governments must consider whether economies in which a few companies capture an ever-increasing share of the globe's wealth are healthy for enterprise. Indeed, in early October 2020, the U.S. House Judiciary Committee released a report criticizing Apple and other big technology companies for stifling competition and innovation for their own gain. Later that month, the U.S. Department of Justice filed suit against Google, accusing it of "unlawfully maintaining monopolies in the search and search advertising markets."[17]

In addition to pursuing the strategies discussed above to mitigate the power of platforms, businesses that depend on them can unite to increase the defensibility of their positions. In 2018, 582 antiquarian book dealers from 27 countries pulled more than 3,700,000 books from AbeBooks, an Amazon subsidiary, after the platform abruptly banned booksellers from a number of countries due to what it said was the increasing cost and complexity (to it) of operating in those jurisdictions. After two days of protest, AbeBooks apologized and retreated.

Platform-dependent businesses can also engage with their governments to argue for new regulatory frameworks to mitigate platforms' power. In 2019, an association of small and medium-sized Indian retailers filed a complaint against Amazon.com and Walmart's Flipkart platform for anti-competitive practices. A subsequent probe by the Competition Commission of India resulted in a decision that barred Amazon and Walmart from selling their own products alongside those of independent vendors. The commission also mandated that the government must have access to the platforms' source code and algorithms. Government action in platform markets has also affected Airbnb, Facebook, Microsoft, TikTok, and Uber. The only consistently applicable advice for companies struggling with platform policies is to stay involved. In other words, you are either at the table or on the menu.

Even as companies pursue strategies to mitigate platform power, that work must be ongoing as platforms endeavor to neutralize those strategies. An

example of this arms race is YouTube's acquisition of FameBit, a company that allowed content creators to bypass YouTube and connect directly to brands to develop videos. With that move, YouTube effectively shut down that workaround.

Every organization dependent on a platform (or considering becoming so) must be aware of the dangers and, from the beginning, understand its options. Every business must realize that on the other side of the screen, the platform's strategists and computer scientists are accessing and analyzing ever-greater reservoirs of data and leveraging more sophisticated algorithms to capture a greater portion of the total value of the platform economy. But as we've shown, the companies that live on those platforms are not helpless, and there is an enormous amount of value in the market — certainly enough for platform owners and platform-reliant organizations to share.

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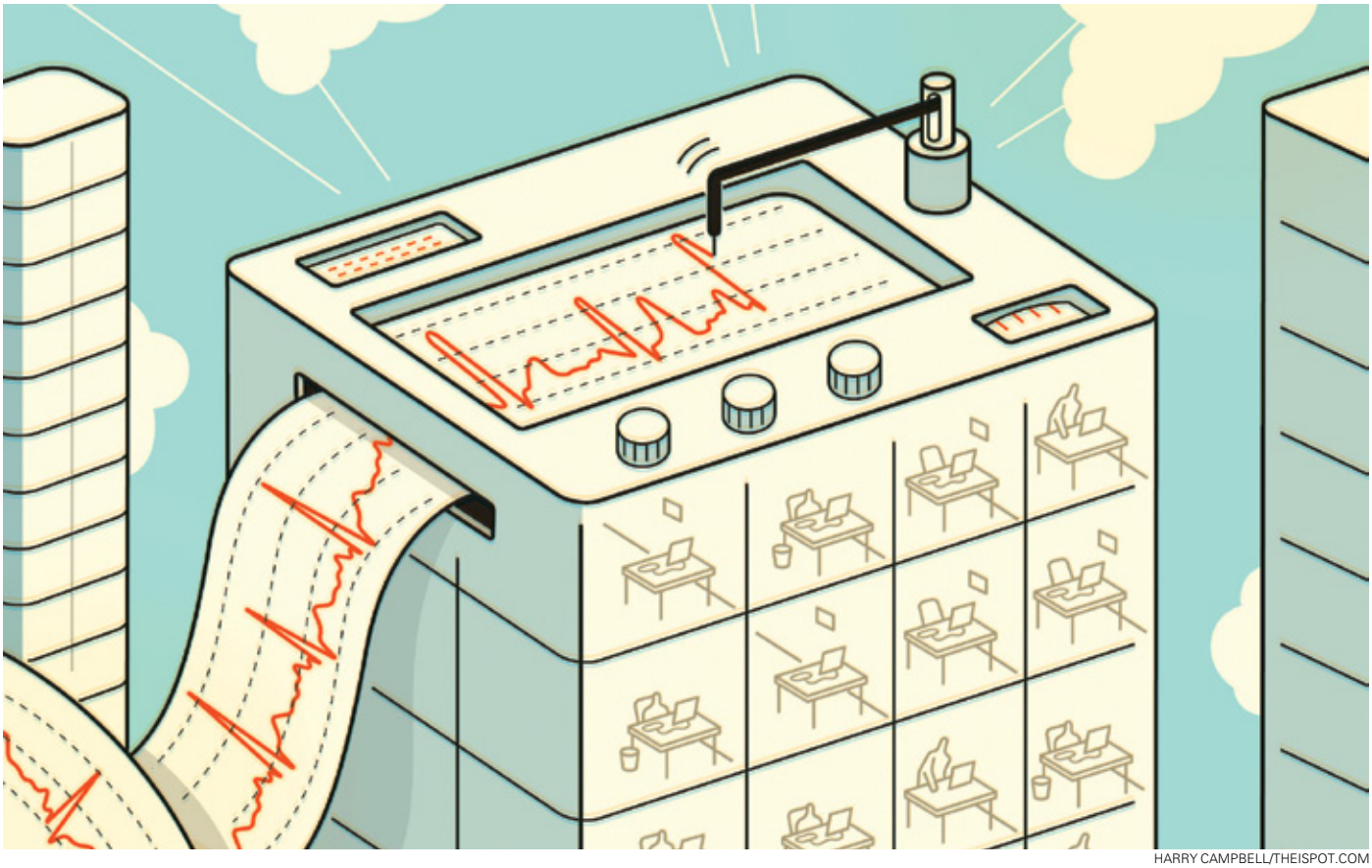

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HOW HEALTHY IS YOUR BUSINESS ECOSYSTEM?

Paying attention to the right metrics and red flags will help leaders sidestep the most common pitfalls in the four phases of ecosystem development.

BY ULRICH PIDUN, MARTIN REEVES, AND EDZARD WESSELINK

Companies that start or join successful business ecosystems — dynamic groups of largely independent economic players that work together to create and deliver coherent solutions to customers — can reap tremendous benefits. In the startup phase, ecosystems can provide fast access to external capabilities that may be too expensive or time-consuming to build within a single company. Once launched, ecosystems can scale quickly because their modular structure makes it easy to add partners. Moreover, ecosystems are very flexible and resilient — the model enables high variety, as well as a high capacity to evolve. There is, however, a hidden and inconvenient truth about business ecosystems: Our past research found that less than 15% are sustainable in the long run.[1]

The seeds of ecosystem failure are planted early. Our new analysis of more than 100 failed ecosystems found that strategic blunders in their design accounted for 6 out of 7 failures. But we also found that it can take years before these design failures become apparent — with all the cumulative investment losses in time, effort, and money that failure implies.[2]

Witness Google, which made several unsuccessful attempts to establish social networks. It invested eight years in Google+ before shutting down the service in 2019. One reason for the Google+ failure was its asymmetric follow model, similar to Twitter's, in which users can unilaterally follow others. This created strong initial growth but did not build relationships, which might have fostered greater engagement on the platform. The downfall of

another Google social network, Orkut, was built into its unusually open design, which let users know when their profiles were accessed by others. It turned out that users were uncomfortable with this lack of privacy, and the network went offline in 2014, 10 years after its launch.

Typically, ecosystems are assessed using two kinds of metrics: conventional financial metrics, such as revenue, cash burn rate, profitability, and return on investment; and vanity metrics, such as market size and ecosystem activity (number of subscribers, clicks, or social media mentions). The former are not very useful for assessing the prospects of ecosystems because they are backward-looking. The latter can be misleading because they are not necessarily linked to value creation or extraction. They indicate the current interest in the ecosystem, and presumably its potential, but may also reflect an ecosystem's ability to spend investors' money on marketing and other growth tactics more than its ability to generate value.

To improve the odds of success and mitigate the high costs of failure, leaders must be able to assess the health of a business ecosystem throughout its life cycle. They need metrics that indicate performance and potential at the system level and at the level of the individual companies or partners participating in the ecosystem, as well as the ecosystem leader or orchestrator. They need to be able to gauge growth in terms of scale not only in ecosystem participation but also in the underlying operating model. And most critically, they need metrics that reflect the success factors unique to each of the distinct phases of ecosystem development.

This article lays out a set of metrics and early warning indicators that can help you determine whether your ecosystem is on track for success and worthy of continued investment in each development phase. They can also help you identify emerging issues and decide if and when you may need to cut your losses in an ecosystem and/or reorient it.

THE RESEARCH

The authors built a database of more than 100 failed ecosystems, including B2C, C2C, and B2B platforms; social networks; marketplaces; software solutions; and payment, mobility, entertainment, and health care services.

They compared the failed ecosystems with their successful counterparts by industry using systematic qualitative and quantitative analysis.

They studied the development of all the ecosystems and identified key success metrics and red flags that are early indicators of emerging challenges in each of the four life cycle phases.

Four Phases in the Business Ecosystem Life Cycle

Our current research revealed that the growth of business ecosystems typically occurs in four phases. Each encompasses unique jobs to be done with corresponding success factors and thus also requires specific indicators and metrics for assessing ecosystem health.

In the *launch* phase, the focus should be on developing a strong value proposition for all ecosystem participants (the orchestrator, partners, and

HOW TO TRACK ECOSYSTEM HEALTH THROUGH ITS LIFE CYCLE

LIFE CYCLE PHASES	KEY SUCCESS METRICS	RED FLAGS
Launch: Establish the ecosystem in the market, introduce it to users, and prove the viability of the concept.	• Number and engagement level of marquee partners • Number and engagement level of high-value customers • Customer feedback	• Critical partners do not join the ecosystem. • The wrong users subvert the value proposition of the ecosystem. • Opinion leaders start to leave the ecosystem. • You frequently have to change your offering.
Scale: Increase the amount of platform activity, expand the operating model, and grow toward profitability.	• Number of new active customers • Number of new active partners • Number of successful transactions • Unit cost per transaction	• A persistent imbalance between participants on both sides of the market develops. • Ecosystem growth reduces value for one side of the market. • Increasing numbers of users misuse the ecosystem. • Quality indicators begin to decline. • The operating model complexity begins to rise.
Mature: Consolidate and defend the ecosystem's position.	• Churn rates of customers/partners • Revenue per customer • Contribution margin per transaction • Retention costs for customers/partners • Acquisition costs for customers/partners	• The engagement level of customers or partners declines. • Early ecosystem adopters start to leave. • Aggressive copycats and/or niche competitors emerge. • Partners begin to create competing platforms of their own. • Successful ecosystems from other sectors expand into your field.
Evolve: Continuously adapt, advance, and reinvent the ecosystem.	• Share of revenue from new products or services • Customer satisfaction • Partner satisfaction	• The orchestrator's take rate from partners rises. • Partners increasingly complain about predatory behavior. • Negative coverage in (social) media begins to accumulate. • Legal actions against the ecosystem accelerate.

customers) and on finding the right initial design. After the ecosystem is established, it enters the *scale* phase, in which the key focus is to increase the number and intensity of interactions in the ecosystem and to decrease the unit cost of each interaction. An ecosystem that has successfully scaled enters the *maturity* phase, in which growth slows and focus turns to bolstering customer and partner loyalty, and on erecting barriers to entry by competitors. Once a defensible position is attained, the ecosystem enters the *evolution* phase, in which the focus shifts to expanding the offering and innovating continuously.

To assess ecosystem health in each of these phases, leaders need to ask and answer the following questions:

- **What is the definition of success?** What are the primary milestones that you need to achieve to master the current life cycle phase and enter into the next phase?
- **What do you need to get right?** What are the key factors that make the difference between success and failure in this phase?
- **What are key success metrics?** Which numbers should you track to assess the performance of your ecosystem in this phase?
- **What are red flags?** What are early warning indicators that signal that your ecosystem may not be on the path to success, that you may have to change your initial design, or that you should shut it down?

PHASE 1: Launch

The goal in the launch phase is to establish the ecosystem in the market by introducing it to users and proving the viability of the concept. To this end, the orchestrator needs to formulate the value proposition and delineate the initial structure of the ecosystem. This work includes defining the activities and partners needed to deliver the value proposition, the links among them, the roles and responsibilities of the different participants, and the design of the governance and operating models. We identified four key factors that make the difference between success and failure during the launch phase.

First, the profit potential of the ecosystem must be large enough to justify the investment required to establish it and attract the partners needed to operate it. This ultimately depends on the value that the ecosystem can create for its customers and their willingness to pay for it. To achieve this, the ecosystem must, for example, remove a substantial source of friction for customers or fulfill a sizable unmet or new customer need.

Second, the orchestrator must motivate the required participants to commit and contribute to the ecosystem. This is about not only the sheer number of participants but also the right participants (such as popular developers on a gaming platform) in the right proportions (a balanced number of drivers and riders on a ride-hailing platform, for example).

Third, the orchestrator must determine the proper level of openness for the ecosystem and create the standards, rules, and processes to regulate access and decision rights. Open ecosystems usually experience faster growth, particularly during the launch phase. They enable greater diversity and encourage decentralized innovation. Closed ecosystems allow for a more deliberate design of the ecosystem and for greater control over business partners and the quality of offerings.

Finally, the orchestrator must decide how to charge for the ecosystem's products and services, and determine how to share the value created in ways that motivate participants to foster ecosystem growth.

Metrics: Many metrics can be tracked during the launch phase of your ecosystem, including marketing expenses, technology costs, revenues, funding, burn rate, total number of users, and media attention. But to assess ecosystem health during this phase and evaluate the odds of success, we suggest focusing on the following three key metrics:

- **Number and engagement level of marquee suppliers.** For example, a restaurant booking platform would want to track the number of subscriptions and reservations among the leading restaurants in key cities.
- **Number and engagement level of high-value customers.** For a gaming platform, this might be heavy users who buy add-ons to enhance play; for a B2B marketplace, it might be the largest companies in target sectors; and for a social media platform, it might be prominent opinion leaders.
- **Customer feedback.** This is measured based on quality ratings of the ecosystem's products and services in comparison to competing offerings, or Net Promoter Scores in customer surveys. In this case, aggregated metrics should be augmented with qualitative feedback from individual customers

to understand the root causes of customer satisfaction or dissatisfaction.

Red flags: If your scores on these three metrics are strong and trending higher, it is likely that your ecosystem is performing well in the launch phase. If, however, any of the following red flags appear, your ecosystem may be veering off the path to success, and you may have to change your initial design or shut down altogether:

- **Critical partners do not join the ecosystem.** Better Place was founded in 2007 to provide an infrastructure for the efficient charging or exchange of electric car batteries. In this model, a buyer purchased a vehicle without a battery and paid a mileage-based monthly fee for leasing, charging, and exchanging it. Better Place failed in 2013, after receiving more than $900 million in funding, because it was unable to secure the participation of automakers, an essential group of partners in the ecosystem.[3]
- **The wrong users subvert the value proposition of the ecosystem.** YouTube was set up as a platform for people to share personal videos, but in its early years many people used the platform to post illegally copied content. As a result, YouTube was sued by several record labels for billions of dollars, and it had to install a strong copyright identification system and monetization options for copyright holders.[4]
- **Opinion leaders begin to leave the ecosystem.** In the DVD player war that started in 2005, the HD DVD platform, developed by Toshiba, Microsoft, and others, initially sold more players than the Blu-ray platform, championed by Sony and Apple. However, the HD DVD camp had to concede defeat after large film studios, including Warner Brothers and Fox Searchlight Pictures, defected to Blu-ray.[5]
- **The ecosystem's value proposition is changed frequently.** Frequent changes to the value proposition suggest that it is not sufficiently compelling or that it appeals to too few customers. Club Nexus, created at Stanford in 2001, was the first college-specific social network. It reached 1,500 members within six weeks of its launch, but growth leveled off just as quickly. The network responded by adding new features, such as chat, email, classified ads, articles, and events. However, the added complexity only made the platform more difficult to use, and the network soon closed down.[6]

Frequent changes to the value proposition suggest that the ecosystem is not sufficiently compelling or that it appeals to too few customers.

PHASE 2: Scale

When ecosystems survive the launch phase, the focus of orchestrators shifts toward increasing the amount of platform activity, scaling the operating model, and growing toward profitability. Two key factors determine the difference between success and failure during this phase.

The first factor is the ability to establish and harness strong positive network effects that provide demand-side economies of scale. Direct network effects occur when the value derived by users on one side of an ecosystem grows as their numbers increase (such as social network users). Indirect network effects manifest when the value derived by participants on one side of an ecosystem grows with the number of participants on another side (for example, drivers on a ride-hailing platform prosper as the number of riders increases).

The second success factor is the ability of the ecosystem's operating model to keep up with growing demand and realize economies of scale. Successful digital ecosystems benefit from asset-light business models, low-to-zero marginal costs, and increasing returns. However, the economies afforded by supply-side scale can be limited by rising marketing, recruiting, and technology expenses. As networks grow, increased complexity and quality control can drive up costs and diminish economies of scale, too.

Metrics: To assess the extent to which your ecosystem is fulfilling these success factors during the scale phase, we suggest that you focus on the following four key metrics:

- **Number of new active customers.** Rapidly attracting new active customers to the ecosystem is the key to achieving scale on the demand side.
- **Number of new active partners.** Increasing the scope, diversity, and scale of the offering is an important precondition for appealing to new customer segments.
- **Number of successful transactions.** Increasing the number of transactions is crucial because ecosystems create value for customers, partners, and orchestrators through transactions, not through media attention, number of registered users, or click rates.
- **Unit cost.** Unit cost — that is, the average total ecosystem cost per transaction — must decrease during the scale phase in order for ecosystem growth to provide value for all participants.

Red flags: In addition to these metrics, a number of early warning signs may indicate that your ecosystem is not on track during the scale phase and that you need to adjust its design or governance model:

- **A persistent imbalance develops between the number of participants on different sides of the market.** U.S. fleet-card companies, such as Comdata (now owned by FleetCor Technologies) and Wex, sought to orchestrate ecosystems that cut maintenance and administrative costs for the owners of truck fleets and drove business to truck stops. But they found it hard to scale initially because they could not convince enough fleet operators to pay for the service. To resolve the imbalance and attain profitable scale, the orchestrators changed their pricing structure from one in which truck fleets paid and truck stops were subsidized to one in which truck stops contributed considerably more to revenues than fleets.[7]
- **Ecosystem growth reduces value for one side of the market.** Covisint, an auction marketplace in which automotive suppliers bid for contracts from car manufacturers, quickly attracted $500 million in funding from five major automakers. But as the ecosystem reached the scale phase, it became increasingly unattractive for suppliers: As more of them joined the ecosystem, the competition for contracts led to lower and lower winning bids. Suppliers abandoned the platform, and in 2004 it was sold for just $7 million.[8]
- **Increasing numbers of users misuse the ecosystem.** As OpenTable, the restaurant booking platform, scaled, the incidence of no-show reservations grew along with it, alienating its restaurant partners. To mollify them, the platform introduced a policy that banned users who failed to show up or canceled reservations less than 30 minutes in advance four times within a 12-month period.[9]
- **Quality indicators begin to decline.** If the quality of an ecosystem's offerings deteriorates during the scale phase, a downward spiral in both supply and demand can develop. For example, social media platform MySpace did not require users to provide their real identity. As a result, the platform became littered with spam and attracted inappropriate content, which, in turn, made it less attractive for major brands to be associated with the ecosystem and ultimately contributed to its demise.[10]
- **Operating model complexity begins to rise.** In the early days of the internet, Yahoo became a leading internet portal and search engine by manually curating and categorizing websites into topic areas. This operating model worked well until the internet started to grow exponentially and the number of websites exploded. It quickly became apparent that Yahoo's model was not scalable, and it was overtaken by Google and its automatic page-rank algorithm.[11]

Orchestrators need to find ways to enhance the loyalty of ecosystem participants, because competitors will increasingly try to poach them.

PHASE 3: Maturity

In the maturity phase, the growth of the ecosystem begins to slow because its market is increasingly saturated and it has captured a substantial share. Now, management's primary objective shifts to consolidating and defending the ecosystem's position. This can be challenging because competitive attacks can target either the demand or the supply side of the ecosystem. Moreover, mature ecosystems must avoid complacency and continue being the technology and innovation leaders in their industries. Two key factors make the difference between success and failure during the maturity phase.

First, the orchestrator needs to find ways to enhance the loyalty of ecosystem participants, because competitors will increasingly try to poach them. This is a particularly dangerous threat when ecosystem participants can simultaneously join multiple competing ecosystems and/or easily switch between ecosystems. For example, restaurants and consumers often use more than one food-delivery platform. To reduce this risk, orchestrators can offer additional services to participants and add user incentives, such as loyalty programs.

Second, orchestrators of mature ecosystems must erect barriers to entry to defend their positions against incursions by competitors and imitators. Digital ecosystems require lower initial investments, and their network effects are weaker and can be more easily reversed than the physical network effects of, say, a railroad or telephone network. To build barriers to entry, orchestrators can harness network, scale, and learning effects (such as using customer data and advanced analytics to continuously improve and personalize offerings) that are difficult for new entrants to match.

Metrics: To assess ecosystem health during the maturity phase, orchestrators and partners should focus on the following five metrics:

- **Churn rates of customers and partners.** Churn rates, the annual percentage rates at which customers stop using an offering or partners stop contributing to the ecosystem, are the most direct measures of loyalty and performance vis-à-vis competing ecosystems.

- **Revenue per customer.** This metric quantifies users' engagement levels and loyalty. Increasing revenue per customer is an important growth lever after a high level of market penetration is achieved.
- **Contribution margin per transaction.** This metric reflects the value that consumers assign to the transactions within the ecosystem. Declining contribution margins per transaction indicate increasing price pressure and competitive intensity.
- **Retention costs for customers and suppliers.** Frequently, retention costs are treated as a fixed cost or not explicitly measured at all, but they can undermine the economics of the ecosystem if they continuously escalate.
- **Acquisition costs for customers and partners.** Similar to retention costs, acquisition costs are frequently not broken out separately, but they are also potentially detrimental to ecosystem economics.

Red flags: A number of early warning signs can help you recognize if your ecosystem is not on track during the maturity phase and when you need to take action:

- **The engagement level of customers or partners declines.** Declining levels of engagement among ecosystem participants often presage revenue declines. The demise of MySpace was foretold when the frequency of use began falling (with only 3% of users checking the app multiple times daily), while more than 30% of users of emerging competitor Facebook checked that app multiple times per day. This was at least partially caused by design choices: MySpace was profile-based, and most profiles were static; Facebook was feed-based and constantly delivered new content to users.[12]
- **Early ecosystem adopters begin to leave.** Early adopters are always in search of the most exciting and advanced offering in a given domain. If they are leaving your ecosystem, there is a good chance that a serious competitor has emerged. At the time of this writing, Twitch is the dominant platform for livestreaming online video games; it had a 73% market share at the end of 2019.[13] However, some of its key early adopters are switching to competing platform YouTube. For instance, Activision Blizzard announced a multiyear exclusivity deal with YouTube in January 2020, which means that Twitch has lost what was at one time its second-most-watched gaming channel, Overwatch League. In addition, a few high-profile gamers with millions of followers have switched from Twitch to YouTube.[14]
- **Aggressive copycats and/or niche competitors emerge.** Successful business models attract competition from me-too players that offer a similar value proposition at a lower price and from niche competitors that bring specialized offerings to specific segments of the market. For example, Upwork, the leading marketplace for freelance labor, faces competition from hundreds of niche platforms that focus on specific industries, job types, and locations.
- **Ecosystem partners begin to create competing platforms of their own.** Sometimes partners in successful ecosystems decide to become orchestrators of their own ecosystem. Handset maker Samsung, for example, is a partner in Google's Android ecosystem but has developed its own app store, the Samsung Galaxy Store, that is in direct competition with the Google Play Store.
- **Successful ecosystems from other sectors launch competitive thrusts.** Ecosystem carryover — the expansion of a successful business ecosystem into a neighboring domain — is an important route for ecosystem growth and expansion, but it is also a substantial threat for incumbent ecosystems. For example, the credit card ecosystems orchestrated by Visa and Mastercard are under pressure from retail marketplaces that are moving into payment services.

Sustainable ecosystems expand their value propositions, such as by adding new products or services, expanding into adjacent markets, or via full ecosystem carryovers.

PHASE 4: Evolution

When ecosystems master the maturity phase, they shift their focus to continuously adapting, advancing, and reinventing themselves before their competitors do. According to our research, three key factors explain most of the difference between success and failure during the evolution phase.

First, ecosystem success over the long term depends on the ability to both learn and innovate faster than competitors. The exact evolution of a business ecosystem cannot and should not be planned in advance. Instead, a key strength of the model is its responsiveness to customer needs and technological changes. To support this, orchestrators must be open to the creativity of ecosystem participants and build flexibility and adaptability into their platforms.

Second, sustainable ecosystems find ways to expand their value propositions. This expansion can stem from the addition of new products or services to an existing ecosystem (such as LinkedIn's addition of online recruiting and content publishing services), expanding into adjacent markets (such as the expansion of ride-hailing

platforms into food delivery), or full ecosystem carryovers (such as Apple leveraging its strong position in the music player ecosystem to conquer the smartphone ecosystem).

Third, as the ecosystem expands, risk management strategies become increasingly important. Dominant ecosystems may have significant negative impacts on internal and external stakeholders, who will naturally push back. Such pushback can come from incumbents (local taxi companies that fight Uber), partners (who complain about unfair pricing on the Amazon marketplace), users (who criticize Facebook's data privacy policies), or regulators (the European Union, which fined Google for anticompetitive behavior in the Android ecosystem). Ecosystems that succeed over the long term avoid predatory behavior, ensure fair value distribution among all relevant stakeholders, and proactively manage stakeholder perceptions.

Metrics: In addition to the health metrics for the maturity phase, which continue to be highly relevant, ecosystems should focus on three additional key metrics during the evolution phase:

- **Share of revenue from new products or services.** The revenue derived from new additions to the ecosystem are a direct measure of ability to innovate and of progress in expanding the offering.
- **Customer satisfaction.** This is a defensive measure that not only alerts orchestrators if their ecosystem is losing its edge but also reflects the quality of the expanded offering. As in the launch phase, aggregated measures of customer satisfaction should be complemented by one-on-one conversations and qualitative feedback.
- **Partner satisfaction.** This measures the extent to which partners feel they are treated fairly and are loyal to the ecosystem, and it reflects the new business opportunities provided by the expanding ecosystem. Again, it is important to listen carefully to qualitative feedback from partners and to act on what you hear.

Rising take rates may drive partners to leave and can indicate that the orchestrator is more focused on extracting value from the ecosystem than on growing it and creating attractive new opportunities.

Red flags: A number of early warning signs may indicate that your ecosystem is not on track during the evolution phase and that you need to adjust your development path or behavior:

- **The orchestrator's take rate from partners rises substantially.** Rising take rates can significantly alter partner economics and may encourage partners to leave the ecosystem. They can also indicate that the orchestrator is more focused on extracting value from the ecosystem than on growing it and creating attractive new opportunities. For example, Etsy, which offers a marketplace for craftspeople and artists, recently raised its take rate from 3.5% to 5%, forced its partners to use its internal payment platform, and required participation in a program that charges an additional 12% to 15% on sales resulting from Etsy ad click-throughs. While Etsy continues to do well, this alienated many partners, leading some of them to protest and leave the platform.[15]
- **Partners increasingly complain about predatory behavior.** Successful orchestrators can be tempted to exploit their dominant position and impose unfair terms and conditions on the ecosystem. Take, for example, EU regulators' investigation into Amazon's marketplace practices and its dual position as both retailer and platform. That scrutiny was spurred by critics' accusations that Amazon used sales data from its third-party merchants to launch its own competing product lines and unfairly promoted its own brands.[16] Perceptions of predatory behavior create opportunities for competing ecosystems to attract important partners.
- **Negative coverage in (social) media begins to accumulate.** Network effects cut both ways. When negative comments accumulate, they can become amplified and lead to a downward spiral that threatens the viability of an ecosystem. This is what happened to MonkeyParking, a platform that enabled drivers to auction vacated public parking spaces to other drivers. After being broadly criticized for privatizing and monetizing a public good, MonkeyParking pivoted into a platform that helps owners of parking spaces rent them.[17]
- **Legal actions against the ecosystem accelerate.** Napster, a peer-to-peer file-sharing website, didn't check the copyright status of files that were shared on its platform, leading many people to use it for illegal music sharing. At its peak, Napster had 80 million registered users, but too many of them illegally shared copyrighted content. As a result, Napster was sued by several record labels and popular musicians, such as Metallica and Dr. Dre. In 2001, it was forced to shut down after losing a major lawsuit. The company tried, but failed, to relaunch with appropriate copyright filters, and eventually its name was sold and used to rebrand an online music store.[18]

Be open to failure and have a clear pivot or exit plan. Given the reality that 85% of ecosystems fail to achieve long-term sustainability, the ecosystem you set up or join will most likely not succeed.

Conducting an Ecosystem Health Assessment

The odds are against ecosystem success, but if you are an orchestrator or a partner, you can improve your odds by using the metrics and red flags described above. To be successful, you should recognize that different phases of ecosystem development require very different managerial focal points and explicitly adopt new metrics as needed.

Incorporate the metrics into your management information system and discuss them and the red flags in your strategy reviews. If you find that your ecosystem is performing weakly on one or more metrics or experiencing the red flags, seek to identify the underlying drivers so that you can address them and prevent future damage.

Be open to failure and have a clear pivot or exit plan. Given the hard reality that 85% of ecosystems fail to achieve long-term sustainability, the ecosystem you initially aim to set up or join will most likely not succeed. This means that it is critical to have clear targets and plans for when and how to change course.

The metrics and red flags described above aren't the only metrics needed to assess a business, but they can help you track the key drivers of ecosystem health and ensure that your company beats the odds and succeeds.

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PLATFORM SCALING, FAST AND SLOW

Conventional wisdom says digital platform businesses should scale quickly, but that's a mistake in some markets.

BY MAX BÜGE AND PINAR OZCAN

Shortly after its 2009 founding in San Francisco, Uber executed a simple strategy that rapidly led to its expansion on a global scale. To achieve network effects by connecting as many drivers and passengers as quickly as possible, the company prioritized launches in new cities. It hired core teams of general managers, operations managers, and community managers in multiple cities at once. In each city, these teams attracted drivers by offering existing black-car services an app — and sometimes a free smartphone — to monetize their idle time. To attract riders, the teams offered subsidized fares to attendees of large conferences and other high-profile events, signing them up and then gaining thousands more riders through word of mouth.[1]

Rapid scaling, as exemplified by Uber, is a core element of platform strategy, with speed considered the decisive factor in the race to succeed in winner-takes-all and winner-takes-most markets.[2] But we've found that rapid scaling may not be the best strategy for all platforms. In some cases, a more careful, incremental, and thus slower approach to scaling is more beneficial.

In studying platform businesses, including Airbnb, Amazon,

MICHAEL GLENWOOD GIBBS/THEISPOT.COM

THE RESEARCH

The authors analyzed a wide range of digital business platforms, including Airbnb, Amazon, Apple, Expedia, Facebook and its Libra project, Google, Grindr, LinkedIn, Netflix, PayPal, and Uber.

They examined the platform companies' scaling strategies and the regulatory obstacles they encountered.

The research hypotheses and findings were corroborated by interviews with industry experts, as well as representatives of finance ministries and central banks belonging to the G-20, a forum for the world's 19 wealthiest countries and the European Union.

Apple, Expedia, Facebook (particularly its e-payment project, Libra), Google, Grindr, LinkedIn, Netflix, PayPal, and Uber, we found that regulatory complexity and regulatory risk are two significant but often neglected factors in platform scaling decisions. Moreover, they are likely to become increasingly important in the years ahead as efforts to regulate tech companies gain momentum and as more companies in a greater variety of sectors and markets seek to capture the benefits of platforms.

Plotting Regulatory Complexity and Risk

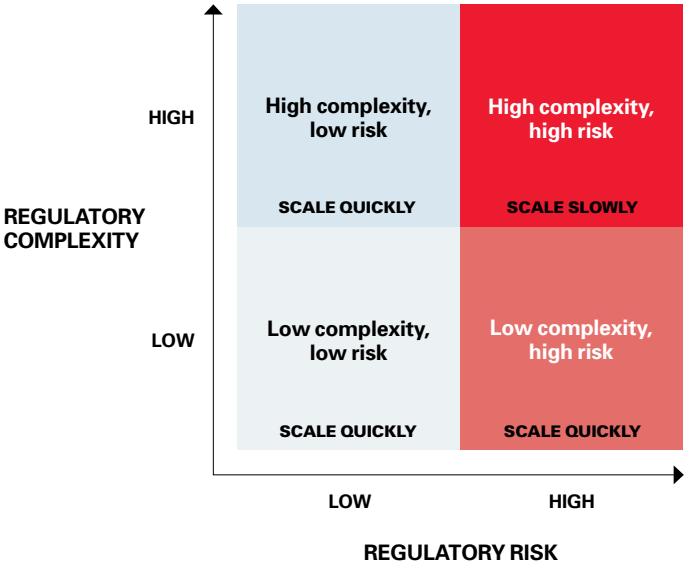
Regulatory complexity describes the current level of legal and regulatory barriers that govern platform entry and operations in a sector. The costs of operating in sectors with high levels of regulatory complexity, such as financial services or pharmaceuticals, can be significant, but legal and compliance teams can analyze and accurately predict them.

Regulatory risk refers to the probability of an

increase in legal and regulatory costs and complexity in the future. It includes a higher degree of uncertainty than regulatory complexity. For instance, until a few years ago, public opinion of tech companies and their platform businesses was largely positive, and policy makers were lenient. Recently, however, a majority of Americans have said that they want tougher regulations for tech companies, and lawmakers in the U.S., U.K., Israel, Japan, and the European Union have called for stricter antitrust, taxation, consumer and data protection, financial, and labor laws and regulations for technology companies.[3] Such regulations can result in considerable expense: Witness California Assembly Bill 5, which limited the ability of companies to classify gig workers as independent contractors and threatened the platform models of companies such as DoorDash, Lyft, and Uber. Along with Instacart and Postmates, those companies spent $224 million — a record-breaking amount in a California proposition campaign — to successfully convince voters to pass Proposition 22, which exempted them from some provisions of the bill.[4] Likewise, Google is likely to face considerable costs arising from the antitrust suit that has been brought against it by the U.S. Department of Justice.[5]

MAPPING REGULATORY RISK AND COMPLEXITY

Platforms face a unique combination of regulatory risk and complexity that they must evaluate as they enter new markets, and adapt scaling strategies accordingly.



It is notoriously difficult to predict policy outcomes or even attribute odds to different outcomes.[6] But there are some objective and quantifiable metrics for calculating regulatory risk, such as ongoing legal cases, probes and inquiries by government agencies, and the number and political influence of lawmakers who argue for tighter regulation.

A simple way for platform owners and operators to understand the potential combinations of regulatory complexity and risk is to think of the two factors as the axes in a 2×2 matrix. (See "Mapping Regulatory Risk and Complexity.")

LinkedIn and Expedia are two examples of platforms exposed to low levels of regulatory complexity and risk. Compliance costs are relatively low in their sectors, as well as in sectors such as software (like Salesforce.com) or entertainment (like Netflix). In addition, there are no serious debates among lawmakers and policy makers in the U.S. and elsewhere regarding whether to restrict their business models or operations.

PayPal is among the platforms operating in markets with high levels of regulatory complexity but low levels of regulatory risk. The company is in the highly regulated financial services sector, where overall compliance spending amounts to $270 billion, and 10% to 15% of the workforce is employed in governance, risk management, and compliance activities.[7] The platform successfully navigates this regulatory environment by carefully weighing regulatory complexity when it chooses which services to offer its 300 million customers. For instance, PayPal didn't seek its first banking license for Europe — a move that would have significantly increased regulatory complexity and scrutiny — until 2007, five years after its initial public offering. But its regulatory risk is low, because the company is not at the center of current policy debates.

Some platforms face low regulatory complexity but high regulatory risk. Online dating doesn't involve a high degree of regulatory complexity, but Chinese gaming company Beijing Kunlun Tech didn't anticipate regulatory risk when it purchased a majority stake in the dating app Grindr in 2016 and acquired full ownership in 2018. Kunlun was planning to grow the platform and launch an IPO, but then the Committee on Foreign Investment in the United States (CFIUS) stepped in. Concluding

that the platform's data could potentially be used by the Chinese government to blackmail U.S. officials or military personnel, CFIUS forced Kunlun to divest from Grindr.[8]

Platforms occupying the quadrant with low regulatory complexity but high regulatory risk include more and more companies, such as Airbnb, Amazon, Facebook, Google, and Uber. A closer look reveals that many of them are operating in a *regulatory void* — that is, a context without established and powerful regulatory authorities, a tight net of rules, and strict barriers to entry. Accordingly, there is a high degree of uncertainty regarding how regulators may react, which makes it difficult for these businesses to develop discrete policy scenarios, attribute probabilities, and make robust assumptions on timing.[9]

Finally, some platforms are in markets where they must contend with high regulatory complexity and high regulatory risk. In 2019, Facebook and a consortium of international partners announced the Libra project, a blockchain-based payment system. Since the release of Bitcoin in 2009, the cryptocurrency market had been rapidly developing, with some countries, such as China and India, choosing a restrictive approach and most Western nations favoring a more nuanced approach that tempered regulation to encourage technological experimentation. Nevertheless, Libra triggered immediate alarm among policy makers and regulators, as well as a precipitous rise in the entire sector's regulatory risk. This occurred for three reasons: a general lack of trust in Facebook; the potential reach of Libra, given Facebook's 2.4 billion users; and the Libra consortium's inability (or unwillingness) to explain how it would obviate negative effects in sensitive areas such as terrorism financing, tax evasion, and money laundering.[10] As a result, in 2020 Facebook and its partners had to drastically revamp their institutional efforts and downgrade their ambitions for Libra to, as the *Financial Times* put it, "appease wary regulators."[11]

Scaling Decisions in the Four Quadrants

Nobel Prize-winning behavioral economist Daniel Kahneman made a distinction between "fast" and "slow" thinking to illustrate two very different modes in which the brain operates under different circumstances. He asserted that fast thinking prevails in situations requiring rapid and intuitive action (such as if you hear a rattlesnake), whereas slow thinking occurs in situations requiring more deliberate, orderly, and computational mental work (such as when you calculate your annual income tax).

Analogous to Kahneman's distinction, we argue that platform owners and operators should explicitly decide whether to scale their user base fast or slow. Fast scaling, which has also been called *blitzscaling* by Reid Hoffman and Chris Yeh, means prioritizing speed over efficiency.[12] The strategic objective in fast scaling is to grow rapidly, experiment quickly to improve product-market fit, and leverage strong network effects to attain and maintain a leading market share. Slow scaling entails detailed scenario planning and actor analysis, careful risk management, incremental geographic expansion, and continual investment in the platform's reputation and trustworthiness. It does not exclude the pursuit of network effects, which are a prerequisite of success for platform businesses, but it prioritizes analysis, iterative growth, and risk minimization over speed.

Increasingly, regulatory complexity and risk are becoming the determining factors in the choice between fast and slow scaling. Legislators and regulators were initially slow to react to the disruptive effects of the platform economy, but that is changing: Currently, there are vivid debates on the appropriate policy landscape for platform businesses in countries as diverse as France, Germany, Israel, Japan, Mexico, Russia, the United Arab Emirates, the U.K., and the U.S. These debates are resulting in legislative and regulatory changes at an accelerating pace.[13]

In low-risk regulatory contexts, fast scaling is necessary to activate three interrelated positive-feedback loops: [14]

- A *network loop*, in which growing numbers of users make the platform more useful and valuable to new users.
- A *data loop*, in which more data yields more insights regarding consumer preferences, market structure, and market trends, which are used to improve the platform's product-market fit, making it more attractive to new users.

- A *capital loop*, in which high growth rates make the platform more attractive to investors — generating the funding and know-how needed to support continued growth.

If any of these loops cannot be activated, scaling takes longer or becomes impossible to achieve, and the platform can become an also-ran. MyTaxi, a ride-hailing platform founded in Hamburg, Germany, in 2009 — shortly before the launch of Uber in the U.S., Halo in the U.K., and GetTaxi in Israel — is a good example. MyTaxi's business model was similar to Uber's, its technology was well engineered, and early feedback from drivers and riders was overwhelmingly positive. Yet MyTaxi was unable to raise the capital it needed to scale fast (mainly because of Germany's shallow venture capital market).[15] As a result, MyTaxi had to merge with a car-sharing platform, and today its rides and revenue are only a fraction of Uber's.[16]

Fast scaling is also the most appropriate strategy for platforms facing low regulatory complexity and high regulatory risk. This seems counterintuitive in a context where fast scaling may arouse the attention of policy makers and regulators, à la Kunlun's plans for Grindr. However, our analysis finds that the powerful advantages of the three feedback loops outweigh the regulatory risks, at least in the short term.

Witness the current situations in which some of the world's largest platform companies, including Amazon, Apple, Facebook, and Google, find themselves. All of them started out in a context of low regulatory complexity and low regulatory risk, and they scaled fast. Now, because of their success and the dominant market positions they have attained, they have increasingly attracted the attention of lawmakers and oversight authorities; in essence, they have migrated to the quadrant of low complexity but high risk.

In reaching scale, however, they have also gained a powerful resource that helps mitigate regulatory risk: a huge base of users, who can serve as powerful political advocates.[17] Thus, in 2017, when Transport for London (TfL) stripped Uber of its license to operate in the city because of safety failures, Uber was able to respond with a petition to renew its license that was signed by more than 500,000 people within 24 hours.[18] TfL relented and granted Uber several extensions. Similarly, when the controversial Stop Online Piracy Act was introduced in the U.S. House of Representatives in 2011, more than 7 million Google users signed a petition against it.[19] The bill died in committee. And when they are unable to influence legislators, as with California's Assembly Bill 5, the platform companies don't only have the financial resources to draft and finance measures such as Proposition 22 but can also use their platforms to influence users: Customers in California were targeted with in-app campaign messaging and via stickers on delivery bags from Instacart and DoorDash.[20]

These examples suggest that the ability to leverage a scaled-up user base as advocates in the political sphere provides a strong incentive for companies facing low regulatory complexity but high regulatory risk to scale fast. Moreover, in the short term, the risks of slow scaling in terms of networks, data, and capital outweigh the risk of attracting regulatory scrutiny. It is possible that the benefits of a switch to slow scaling may be substantive in the long term, but that is neither clear nor tangible given the residual uncertainty in this context.

In arenas with both high regulatory complexity and high regulatory risk, however, slow scaling is the most prudent strategy. Facebook demonstrated the pitfalls of fast scaling in this quadrant with its Libra project. Our interviews, as well as public statements, revealed that financial regulators were surprised by the project's fast-scaling strategy, which they found highly inappropriate, especially in light of Facebook's involvement in data misuse scandals and the project's disruptive potential vis-à-vis national financial and monetary policies.

"Libra, like any [cryptocurrency] project with global scale and scope, must address a core set of legal and regulatory challenges," said U.S. Federal Reserve governor Lael Brainard in a December 2019 speech. "A significant concern regarding Facebook's Libra project is the potential for a payment system to be adopted globally in a short time period and to establish itself as a potentially new unit of account."[21]

As Brainard's comment suggests, Facebook's fast-scaling approach in an environment of high

regulatory complexity and risk led to its quick shutdown by powerful financial market supervisors.[22] A slower, more careful scaling strategy would have been less controversial and more likely to have led to Libra's success.

How to Scale Slow

Platform businesses operating in high-risk, high-complexity environments might avoid the challenges faced by the Libra initiative by using a slow-scaling strategy that has four key ingredients: analysis of the macro environment, careful risk management, investment in stakeholder trust, and incremental geographic expansion.

Analysis of the macro environment: Analysis begins with the selection of the strategy team. In contexts of high regulatory risk, platform owners and operators need to predict policy dynamics and identify potential regulatory scenarios. This requires that they supplement their legal, technical, and business teams with policy experts, risk analysts, and scenario planners.

These experts should provide in-depth analyses — and mapping before and during project development — to identify relevant institutional actors and understand their mandates and priorities along with the broader economic, social, and political effects and implications of the platform. Such analyses are a prerequisite for identifying risks, making underlying probability assumptions, and developing strategic responses.

Careful risk management: As a natural extension of the above analysis, platforms need to identify risks and develop a sound risk management system in the context of high regulatory complexity and risk. Introducing a risk management system too late can be costly in terms of time, money, and reputation. Thus, early in the process of strategy making, risk management and scenario planning should receive the same level of attention by senior management as the platform's technology and business models.

Technology companies can identify and manage a wider range of risk by adapting the environmental, social, and governance (ESG) mechanisms already in place in other sectors. A broad set of ESG standards and risk management tools already exists.[23] However, ESG mechanisms designed specifically for the digital economy are still in their infancy.

Investment in trust: Too often, companies focus their efforts on innovative technology and attractive user interfaces but neglect the potential societal consequences of their platforms. In a recent survey of 34,000 people in 28 countries, more than 60% of the respondents said they are worried that tech companies are "out of control" and that governments are not regulating them effectively.[24] Such public sentiment, and the demands of investors and other stakeholders, are driving leaders to place a higher priority on seeing that their companies behave in a trustworthy and reliable manner.[25]

Trustworthiness is especially important in contexts of high regulatory complexity and risk. To attain this status, platform operators should understand the underpinnings of public and institutional trust, and invest resources to maintain and enhance trust from regulators and consumers.

Narrow geographical focus, incremental expansion: Because trying to achieve global scale in sectors typified by high regulatory complexity and risk is hazardous, platform expansion should be more cautious. Experimental techniques that have become a mainstay of improving product-market fit, such as A/B testing, can be difficult or strongly limited in highly complex and risky regulatory contexts.

One alternative is to test the waters in selected jurisdictions. The resulting interactions with regulators and consumers can provide important insights and highlight previously undetected risks. Before committing to geographic expansion, these findings can be fed into product development and political strategy.

"SUCCESSFUL TECH BUSINESSES need to understand how to navigate through the complex, and not always coherent, regulation that global lawmakers are rolling out," concluded international law firm Hogan Lovell after surveying new tech regulations in 16 jurisdictions across the globe.[26] We expect this advice to apply to more and more platforms in the coming years.

Daniel Kahneman proposed a more nuanced understanding of human cognition based on the idea that thinking fast is advantageous in some situations while thinking slow is better in others.

Similarly, our research suggests that a more nuanced understanding of platform scaling is needed. We think that understanding should include regulatory complexity and regulatory risk — two parameters that enable platform owners to plumb the macro environment and design sound and context-specific scaling strategies. We foresee that these parameters will become increasingly important for tech companies in the future, especially as digital disruption expands to more strictly regulated sectors, and policy makers and regulators increasingly redesign legal frameworks in the era of the platform economy.

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