Firms eager to succeed in the sharing economy are encouraged to imitate the strategies and business models of successful businesses like Airbnb and Uber. Yet they often ignore the lessons from sharing economy firms that failed with similar business models. Our analysis of several failed firms has identified common causes of failure, and the associated risks, when competing in the sharing economy. An illustrative case study shows that a hybrid business model can significantly reduce the inherent risks and can lead to sustainable growth in the sharing economy.\textsuperscript{1,2}

Karl Täuscher  
Bayreuth University  
(Germany)

Jan Kietzmann  
Simon Fraser University  
(Canada)

The Rise of the Sharing Economy

Fueled by the popularity of firms such as Airbnb and Uber, the sharing economy, otherwise referred to as the collaborative economy or peer economy, has recently gained increasing attention among practitioners and academics. In the sharing economy,\textsuperscript{3} new ventures develop and deploy digital platforms to enable peer-to-peer sharing of goods, services and information. The underlying proposition of sharing economy firms is that they can add value by allowing owners of resources to make their idle personal assets (e.g., rooms or homes) available to those who need them (e.g., travelers).\textsuperscript{4} As such, sharing economy firms are direct alternatives to established businesses (e.g., hotels). The resource optimization offered by these firms has become possible through recent technological advances in search, rating and matching algorithms, the spread of mobile consumer devices and the explosive growth in the use of

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\textsuperscript{1} Hope Koch, Iris Junglas, Ping Wang and Arun Sandararajan are the accepting senior editors for this article.

\textsuperscript{2} The authors thank the participants in workshop at HICSS 2017 for their insights and expertise, which greatly assisted the research. We are grateful to Mary Lacity for her comments on an earlier version of the manuscript. We also thank the guest editors for their helpful guidance and support.

\textsuperscript{3} A good definition of the sharing economy is provided by Hamari, J., Sjöklint, M. and Ukkonen, A. “The sharing economy: Why people participate in collaborative consumption,” Journal of the Association for Information Science and Technology (67:9), September 2016, pp. 2047-2059.

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social media platforms. Through increased and improved data-flow opportunities, sharing economy firms have enabled innovative two-sided business models to transition from ownership-based to access-based consumption, from individual to collaborative forms of consumption and from a corporation-centered economic model to “crowd-based capitalism.”

The principles of the sharing economy are exemplified by technology platforms such as Airbnb’s peer-to-peer marketplace for accommodation, by Uber and Lyft’s peer-to-peer ridesharing and by peer-to-peer skills-sharing platforms such as Udemy. The successes of these sharing economy trailblazers are impressive. After only seven years of operations, Airbnb had already surpassed the world’s largest hotel chains in the number of beds and bookings. By 2017, Uber had become the most valuable private firm in the world, valued at $60 billion, and Udemy had attracted a community of over 10 million users and received $173 million from its investors.

Given the rapid growth and high valuations of these firms, hundreds of technology ventures have emerged in recent years to develop similar business models. However, only a tiny proportion of these ventures has reached a substantial network size or received significant funding. In the third quarter of 2017, Crunchbase, the world’s leading database of private technology firms, categorized over 500 businesses as sharing economy firms. Two of them (Airbnb and Lyft) had received more funding than the remaining firms combined. This suggests that these highly referenced firms do not represent the prototypical sharing economy firm.

Much can be learned from the accomplishments of firms like Airbnb, Lyft and Udemy, although it is clear that imitating their business models does not guarantee a similar success story. If it did, there would be many more firms like Airbnb. Our research has shown that there are many different reasons why most sharing economy firms are less successful, or even going out of business. It seems that managers of firms aspiring to compete in the sharing economy frequently suffer from Survivorship Bias. They concentrate only on the strategies and business models of firms that are very successful and disregard those that are not. This error, vividly described as the Fallacy of Silent Evidence by Nassim Taleb, lulls decision makers into the dangerous belief that the sharing economy offers high returns for all new entrants. Worse still, they suffer from Confirmation Bias, which means they search for instances that confirm their beliefs and desires without looking for more critical, contradictory evidence that would teach them about the risks of operating in the sharing economy.

Many managers of aspiring sharing economy firms are therefore setting themselves up for failure. In many respects, this situation is reminiscent of the dot-com boom of the 1990s. To enhance their chances of success, managers need to take account of the valuable insights offered by the silent evidence of failures in the sharing economy, even though this evidence rarely makes it into the popular press. Accordingly, the research question we set out to address was: Why do some sharing economy firms fail? Based on our findings, we propose that hybrid business models can help to mitigate the common sharing economy risks identified by examining failure cases.

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7 The concept of collaborative consumption is introduced by Botsman, R. and Rogers, R. What’s Mine Is Yours: How Collaborative Consumption is Changing the Way We Live, Harper Collins Business, 2011.
8 For a comprehensive review of the sharing economy’s impact on society, consumers, economic growth, the future of work and necessary regulations, see Sundararajan, A. The Sharing Economy: The End of Employment and the Rise of Crowd-Based Capitalism, MIT Press, 2016.
9 Throughout the article, the source of venture-capital-related data is Crunchbase.com, the largest global startup database.
10 Angel.co, a marketplace for startups and investors, currently lists over 1,200 startups in the sharing economy space. For an up to date list, see https://angel.co/sharing-economy-4.
11 Note that Uber, which has received the largest amount of funding of any of these firms, is not categorized as a sharing economy firm in the Crunchbase database.
13 Ibid.
The Research Approach

The insights presented in this article are derived from two complementary research approaches. We started in 2015 by conducting 21 interviews with managers and investors of sharing economy firms to obtain their views about the perceived success drivers in the sharing economy. Over the next two years, we also visited sharing economy firms like Airbnb, Lyft, Getaround, Udemy and 99Designs, examined various business models conceptually and developed case studies.

Although the interviews and case studies helped us identify what works, they did not provide much understanding about what doesn’t work. To gain a more comprehensive understanding of failures in the sharing economy, we analyzed the business models of 73 firms that met our definition of the sharing economy and had passed the initial startup phase, and observed their performance in the subsequent quarters. As expected, some of these firms filed for bankruptcy during the observation period. Others are still operating but have not shown any substantial growth. These observations provided important insights into the sources of failure and underperformance in the sharing economy. For some failures, the firm’s entrepreneurs or managers have publicly reflected on the reasons for the death of their firm. These reflections, known as postmortems in the startup world, further allowed us to integrate the first-hand perspective of the responsible decision makers into our understanding of failures in the sharing economy. In this article, we distill our key insights into a set of the most prominent causes of failure, which we illustrate using mini-cases.

First, though, we summarize the current common wisdom about success in the sharing economy. We then present the mini-cases to illustrate the common causes of failure in the sharing economy. The mini-cases are followed by a description of how a successful sharing economy firm—Udemy—mitigated the failure risks through business model innovation. The Udemy case demonstrates that successful sharing economy firms increasingly adopt hybrid business models to reduce their exposure to the identified risks. The article concludes with advice on how managers can use the insights gained from our research to develop successful sharing economy business models.

Common Wisdom about Success in the Sharing Economy

Sharing economy firms are commonly associated with exceptional business opportunities. The high expectations about their future profitability are often based on two characteristics: scalability and network effects. Scalability refers to a firm’s ability to flexibly offer its service to a larger number of users without incurring proportional additional costs. Because many firms in the sharing economy offer a self-managed matchmaking service through a digital platform, they can serve additional users at a marginal cost, close to zero. Given the economics of software, these firms increase their profit margins as they serve more customers with their platform product. Moreover, the increasing efficiency of cloud computing services like Amazon Web Services allows firms to flexibly adjust their capacity. Given decreasing costs and flexible adjustment, scalable firms have a strong incentive to grow.

Network effects describe how a firm’s offering becomes more attractive to users as the network of users and suppliers grows. For instance, Airbnb becomes more attractive to travelers as more apartments are available on the platform. In turn, the service becomes more attractive to hosts as more people search and book accommodation on the site. This dynamic generally leads to reinforcing the attractiveness to both sides of the market because everybody benefits from a platform’s increased network size.

Business models that are both scalable and generate network effects are perceived as leading to a virtuous cycle of increased market share and profitability. In fact, many sharing economy markets are commonly expected to demonstrate winner-takes-all dynamics, in which the market

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leader will eventually dominate the space. Based on this perspective, it follows that new entrants will not be able to compete once the market leader has reached a substantial network size. If this common wisdom holds true, firms with strong network effects and high scalability should perform well in the sharing economy.

Mini-Cases of Sharing Economy Failures

Our research showed, however, that high scalability and network effects do not guarantee success in the sharing economy. Below, we present five mini-cases of sharing economy firms that, despite impressive network growth in their early stages, either ceased operations or were struggling before they were acquired by competitors. Table 1 provides an overview of the five cases.

It is noteworthy that firms in the sharing economy initially face similar challenges to startups in other markets. They fail as a result of technological challenges, a lack of product-market fit, the inability to attract venture capital or as a result of flaws in the organizational design. However, instead of these “normal” failure factors, we focused on the six challenges that directly arise from the nature of sharing economy business models. These six are the common causes of failure identified from the cases: low customer lock-in, low control over service quality, high competition for idle resources, low transaction frequency, high cost of developing both market sides and unexpected changes in the legal environment.

Failure Cause 1: Low Customer Lock-in

Sharing economy firms benefit from low marginal costs because they are often not directly involved in delivering the service to customers. Rather, they provide value through matching buyers and sellers, and facilitating value exchange transactions. Monetizing such intangible benefits can, however, be challenging.

Consider the example of Carpooling.com, a German firm founded in 2001 that pioneered and initially dominated the peer-to-peer carpooling market in Europe. Carpooling.com provided an efficient platform for car drivers to find passengers (and vice versa) and share costs when travelling from one city to another. The business model was highly scalable and generated strong network effects between drivers and passengers. However, in 2013, the firm introduced a revenue model that charged participants a small commission fee for rides organized via its platform. While passengers had previously paid drivers in person after the ride, Carpooling.com now asked all participants to register and pay for their rides upfront via its digital platform. The change in the revenue model and the upfront payment was not received well by the customers,

Table 1: Overview of Failure Cases

<table>
<thead>
<tr>
<th>Firm</th>
<th>Country</th>
<th>Description</th>
<th>Founded</th>
<th>Exited/Acquired</th>
<th>Total Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homejoy</td>
<td>U.S.</td>
<td>Peer-to-peer home services</td>
<td>2010</td>
<td>2015</td>
<td>$64.2 million</td>
</tr>
<tr>
<td>Carpooling.com</td>
<td>Germany</td>
<td>Long-distance ridesharing</td>
<td>2001</td>
<td>2015</td>
<td>$10.0 million</td>
</tr>
<tr>
<td>Sidecar</td>
<td>U.S.</td>
<td>Ridesharing</td>
<td>2011</td>
<td>2015</td>
<td>$45.5 million</td>
</tr>
<tr>
<td>Stayzilla</td>
<td>India</td>
<td>Accommodation sharing</td>
<td>2011</td>
<td>2017</td>
<td>$34.0 million</td>
</tr>
<tr>
<td>Beepi</td>
<td>U.S.</td>
<td>Marketplace for used cars</td>
<td>2013</td>
<td>2016</td>
<td>$148.9 million</td>
</tr>
</tbody>
</table>

as evidenced by heated comments on Carpooling.com's social media sites. Users complained that they suddenly had to pay for a service that was previously free.

Over the subsequent months, passengers started to use alternative carpooling sites. The reduction in passengers subsequently decreased the attractiveness to drivers. Within a few months, the virtuous cycle that had spurred previous growth turned into a vicious downward spiral, with more drivers and passengers leaving the platform every month. Within a short period of time, the firm had lost a large share of its network. Following the dramatic decrease in size, Carpooling.com was acquired in 2015 by French competitor BlaBlaCar.16

**Failure Cause 2: Low Control Over Service Quality**

Sharing economy firms are often not physically involved in delivering the service to customers, have no formal obligations to supply-side users and enjoy beneficial taxation and regulation compared to incumbents. While these attributes help sharing economy firms build a competitive advantage against incumbents, they simultaneously present some challenges. The case of Homejoy illustrates this point.

Founded in 2010 in San Francisco, Homejoy was a pioneer in the market for peer-to-peer home services. On its matching platform, independent cleaning contractors offered their services for house cleaning and related tasks. Homejoy soon became the fastest growing venture backed by Y Combinator, one of the world’s most powerful startup accelerators.17 The firm had expanded into 30 cities in North America and Europe, but flaws in its business model became apparent. First, Homejoy’s user-acquisition strategy, financed by promotional prices below the firm’s cost, enabled rapid network and revenue growth but did not build a loyal customer base. Most customers never returned to pay the regular price after enjoying the promotional offer.

The firm also encountered quality issues because the independent contractors had different levels of qualifications and delivered inconsistent cleaning standards. If Homejoy had formally trained its cleaners, regulators would have questioned their legal classification as independent contributors. Thus, the firm faced a choice between remaining a matchmaker of customers and independent cleaning contractors or providing higher service quality (through formal training and procedures) at much higher costs (through taxable formal employment). In addition, customers were hesitant about trusting their house to a different stranger every time they used Homejoy’s cleaning service. Satisfied customers started making cleaning arrangements, outside the platform, with the trusted cleaner they had found via Homejoy, and thus saved both sides the commission fee. Homejoy’s business model was therefore financially unsustainable, and the firm incurred increasing losses as it expanded. Given the lack of profitability and staggering costs, Homejoy shut down in 2015.18

**Failure Cause 3: High Competition for Idle Resources**

A strength of sharing economy firms is that they use resources without owning them. But, as the sharing economy grows and more firms enter the market, access to these resources becomes increasingly difficult. The ridesharing market and the case of Sidecar provide an excellent illustration of the risk associated with leveraging resources that are seemingly idle and free.

Founded in 2011 in San Francisco, Sidecar pioneered the on-demand peer-to-peer ridesharing model. Later, Uber and Lyft entered the ridesharing market, with all three firms relying on nearly identical business models. So why did Sidecar exit the market in 2015, while its competitors became two of the world’s highest-valued private firms? A major reason was the increasingly aggressive battle to sign up new drivers and passengers. In contrast to the notion of “idle” and “free” resources, access to drivers and their assets became a sought-after resource.


In cities like San Francisco, Uber and Lyft offered new drivers a sign-up bonus of up to $750, with an additional bonus if they had previously worked for a competing ridesharing platform. Although such an aggressive get-big-fast strategy is rarely profitable in the short term, it is consistent with the so-called winner-takes-all hypothesis. In a platform market with strong network effects and scalability, the market leader will become more powerful over time and eventually force its competitors to exit the market or pursue a niche strategy. This hypothesis explains why investors considered Uber to be on a successful growth path despite a loss of nearly $3 billion in 2016.\textsuperscript{19}

Although Sidecar had attracted $45 million in funding, this amount was tiny compared to Uber's $12.5 billion funding and Lyft's $1.8 billion. Competing with a similar loss-making strategy was not an option for Sidecar, and management eventually realized that it could not succeed against its capital-rich competitors.\textsuperscript{20} Thus, in 2015, Sidecar decided to change its business model to a peer-based delivery model. In this market, however, Sidecar faced competition from firms that had both larger financial resources and several years of experience. Months later, Sidecar ceased its operations.

The ridesharing market demonstrates how sharing economy firms no longer compete only with traditional business models, but increasingly with each other. The Sidecar case also illustrates the risk of making inappropriate comparisons when assessing the potential of sharing economy firms. Network effects and scalability are often seen as the source of the advantages that sharing economy firms (e.g., Uber, Lyft and Sidecar) have compared to traditional firms in the same industry (e.g., taxis). Although such a comparison can emphasize the specifics of the sharing economy business model, it often provides an over-simplified and even misleading understanding of the firm's commercial potential. Even Uber's large network size does not guarantee its success in key markets such as China or India, where local competitors Ola and Didi Chuxing currently have the largest market shares.\textsuperscript{21} Comparing these firms with each other reveals that, although network effects and scalability represent common attributes of sharing economy firms, they do not necessarily contribute to a competitive advantage.

**Failure Cause 4: Low Transaction Frequency**

Even with lower acquisition costs for the supply side, it can be challenging to develop a profitable business model if transactions occur infrequently. Take the example of Beepi, a marketplace for used car sales. Founded in 2013, the firm provided an algorithm that effectively matched buyers and sellers of used cars by leveraging big data to determine the market price. In comparison to other sharing economy firms, Beepi's employees were more involved in the transactions. They inspected and delivered each car and completed the related paperwork. Yet, the business model had a significant flaw: purchasing a car is an event that, for each buyer, usually occurs only every few years. Even when customers were highly satisfied with the service, they had no need to use the platform more frequently. This meant that it would take several years to recover the cost of acquiring a customer. Over the short run, the firm's $149 million in funding was not sufficient to bridge the time gap between the firm's customer acquisition costs and revenue from those customers. Beepi ceased trading in 2016. This case illustrates the risk of operating in markets with low transaction frequency, where costs occur before the firm can generate revenues from recurring transactions.

**Failure Cause 5: High Costs of Developing Both Market Sides**

To be successful, sharing economy firms need to attract a critical mass of users on both the demand and supply sides. Developing both market sides can be a challenging task, particularly when the market environment is not


(yet) accustomed to the principles of the sharing economy. With more than 50,000 homestay properties, Stayzilla was one of the leading accommodation sharing platforms in India. Stayzilla’s business model was similar to Airbnb’s in that it charged a commission fee for every booking made via its platform. With cutting-edge technology, the firm could forecast demand and prices, and predict booking confirmation rates. Despite the large domestic market potential, the firm announced its closure in early 2017, six years after it was founded, in 2011.

Reflecting on the reasons why Stayzilla failed, co-founder Yogendra Vasupal emphasized the high costs of developing the market in India: “The demand and supply for homestays was non-existent 18 months back, excluding a few small pockets. As a result, we had to invest extensively in both sides of the marketplace, creating homestays as well as guests who would choose a homestay across the country. … We could not even recoup what we put in, necessitating very large capital requirements simply to sustain growth.”

Stayzilla’s heavy investment in market development had resulted in rapid network growth up to early 2015. After that, the number of users declined steadily, resulting in a loss of $14 million in the subsequent financial year (on revenues of $2 million). The real killer, however, was that once Stayzilla had familiarized Indians with the concept of private accommodation sharing, Airbnb entered the market. Given its large brand recognition and financial muscle, Airbnb soon forced Stayzilla into a small market niche.

The Stayzilla case demonstrates that whether a sharing-based business model succeeds depends on the specific market environment. It also shows that even if a firm succeeds in developing the market, the initial costs and efforts might not pay off if competitors can leverage their network size across markets.

Failure Cause 6: Unexpected Changes in the Legal Environment

The competitive advantage of sharing economy firms often stems from the fact that they operate outside the formal regulatory and taxation system. However, as sharing economy services become increasingly professionalized, participants on the provider side become quasi-employees, and the public perception and legal treatment of these firms starts to shift. Ongoing legal battles of ride- and accommodation-sharing firms in cities around the world demonstrate the degree to which the success of their business models depends on the legal environment.

For instance, authorities in Airbnb’s home market, San Francisco, implemented legislation that limits short-term rentals and requires participants to officially register with the city and pay a hotel tax. Most importantly, the legislation shifts the responsibility for violations to the accommodation sharing platforms, which have to pay fines of up to $1,000 per day for each unregistered listing on their platforms. As only around 25% of Airbnb’s San Francisco’s listings were registered when the law was introduced, it had to actively remove listings from the platform to avoid significant financial penalties.

In addition, public opinion about these firms began to shift when people became more aware of the working conditions in ridesharing businesses and the impact of accommodation sharing on the nature of neighborhood communities. In some cases, new legislation has even destroyed the viability of a sharing economy business model. The startup Flytenow entered the market as the first ridesharing platform for aircraft, connecting local pilots with aviation enthusiasts. After the venture had successfully grown for two years, authorities decided to ban flight-sharing websites outright.

Summary of the Identified Causes of Failure

The mini-cases described above provide some counter-evidence to the common wisdom about success in the sharing economy. While the identified causes of failure shouldn’t discourage...
managers from pursuing business opportunities in the sharing economy, the mini-cases highlight that even business models with high scalability and network effects are no guarantee for sustained performance. In addition, the mini-cases can help managers understand the specific challenges of competing in the sharing economy. Table 2 summarizes the identified causes of failure and describes the related risks.

Although sharing economy business models can be highly successful, the identified causes of failure, coupled with the “Fallacy of Silent Evidence,” show that managers in aspiring sharing economy firms must be mindful of the risks they will face. When designing their business model, managers eager to maximize growth should not lose sight of the sources of the causes of failure, and the associated risks, we have identified.

Over the course of our case studies, we observed how several peer-to-peer sharing platforms had transformed their business models to make them more resilient in the face of these risks. Based on an in-depth case study, we now describe how Udemy, a peer-to-peer marketplace for skills sharing, developed a hybrid business model to combat the risks arising from the causes of failure inherent in the sharing economy.

### How Udemy Developed a Hybrid Business Model for the Sharing Economy

Technological advances are providing new opportunities for matching individuals with specific skills to learn from each other, and several firms have developed business models for skills-sharing services. One is Udemy, a San Francisco-based firm, which set out in 2010 to develop an online platform to enable individuals to share their unique knowledge and skills by creating short online courses and selling them to other individuals. More than 10 million people registered for the 55,000 courses created by individual experts on Udemy’s platform. Udemy’s primary product is a web-based learning platform (www.Udemy.com) that offers self-

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Table 2: Causes of Failure in the Sharing Economy and Related Risks

<table>
<thead>
<tr>
<th>Cause of Failure</th>
<th>Related Risk for Sharing Economy Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Low customer lock-in</td>
<td>The transaction-centered nature of sharing economy business models generally creates low switching costs between platforms. Hence, sharing economy firms can rapidly lose their entire network of participants.</td>
</tr>
<tr>
<td>2. Low control over service quality</td>
<td>Sharing economy business models inherently lead to lower control of the customer experience because it is delivered by independent participants.</td>
</tr>
<tr>
<td>3. High competition for idle resources</td>
<td>New entrants can threaten the business model of the dominant platform by aggressively competing for its supply-side participants.</td>
</tr>
<tr>
<td>4. Low transaction frequency</td>
<td>Business models face difficult economics if they address a market in which product or service transactions occur infrequently.</td>
</tr>
<tr>
<td>5. High cost of developing both market sides</td>
<td>Pioneering firms need to invest heavily in legitimizing sharing business models if they enter entirely new markets.</td>
</tr>
<tr>
<td>6. Unexpected changes in the legal environment</td>
<td>Regulatory changes threaten the firm’s business model or impose expensive lawsuits.</td>
</tr>
</tbody>
</table>
paced online courses on a broad variety of topics, ranging from business and marketing skills, to design skills, language courses and courses for developing skills in specific hobbies. Each course generally consists of a series of videos, additional multimedia files or short quizzes.

**Udemy's Original Business Model**

The aim of our case study was to discover how Udemy's business model enables the firm's sustained growth. From its inception in 2010, Udemy used a typical sharing economy business model to provide a peer-to-peer marketplace. Its revenues came from the commission it earned, calculated as a percentage of the fees paid for each course. Instructors chose to price their courses at between $9 and $300. Udemy's value-creating activities were similar to those of other peer-to-peer marketplaces, like Airbnb or Uber.

By early 2016, Udemy employed 270 employees, with its largest teams focusing on engineering, instructor development and user growth (marketing). As with other sharing economy firms, the marginal costs as more instructors and users were signed up were small, and the business model was therefore highly scalable. The platform became more attractive to learners as more people created online courses—and more attractive to instructors as more people purchased their courses. Hence, the business model inherently generated network effects.

Udemy was facing several of the risks presented in Table 2 and addressed them with different solutions. To reduce the burden of developing both the supply and demand sides, the firm initially focused on attracting instructors with an innovative technological approach. Udemy's platform allowed instructors to upload videos, blog posts and presentations, and to engage with their online audience. In addition, the firm partnered with other learning platforms to link existing online courses to its platform and even produced proprietary content. Udemy started to sign up demand-side customers only after it had attracted a substantial network of experts and learning content.

To reduce the risk of participants transacting with each other outside the platform, Udemy developed comprehensive technical and social features that provided learners with additional benefits from taking courses on Udemy's platform. These features continuously engaged (and retained) students, rather than suggesting they simply purchase the course content. In effect, Udemy operated as a cloud-based learning library, where students discussed the content with each other and with the course creator. Thus, Udemy's service provided a natural lock-in mechanism because users needed to return to the platform to consume the content.

To ensure the quality of course content, Udemy provided instructors with detailed design guidelines and a design platform. Even so, with thousands of courses created every year, the firm could not prevent some instructors from offering low-quality lectures.

While this business model allowed Udemy to rapidly grow the network size and revenues, the firm has yet to become profitable. As of 2017, it was not clear whether its original business model would recoup the high costs of rapid market development and sustainably fend off aggressive competitors. Although the online skills-sharing market was growing at significant rates every year, market saturation would eventually increase competition between firms in the market. Hence, Udemy's managers faced an important strategic decision: should they focus their entire resources on scaling the peer-to-peer sharing business model at the fastest speed possible or expand the firm's business model into new markets?

**Transforming Toward a Hybrid Business Model**

Udemy's management decided to transform toward a hybrid business model—one that combines a network-based approach with a hierarchical coordination approach for creating and delivering value. Such a hybrid model provides the growth benefits of a peer-to-peer sharing platform while ensuring financial stability through recurring revenues from a contractual business-to-business (B2B) model. In the B2B model, Udemy will bundle the most popular courses—created by individuals on Udemy's platform—and offer them as corporate training solutions to businesses, selecting the courses that best meet the quality expectations of business customers. The courses will be provided via a customized version of Udemy's online learning platform, where corporate customers will be able to integrate their existing content
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with the courses created by Udemy’s instructors. Udemy will charge business customers a monthly subscription fee, which will include the learning platform, content, technical support and other personalized services. The price for business customers will depend on the number of employees.

The hybrid business model addresses several of the identified risks. Selecting high-quality courses allows Udemy to take greater control over the quality of the service. The hybrid model also shifts the nature of the customer relationship. In the original business model, learners interacted mostly with instructors. In the B2B model, Udemy provides a customer support service as a primary point of customer contact. The hybrid B2B model also provides a much more predictable stream of revenue from customers’ monthly subscription fees. In addition, the hybrid model increases customer retention. Although it requires more time and resources to acquire business customers, these clients have a much higher retention rate. Once a firm decides to use Udemy’s service as its primary source of employee training, it would incur substantial costs to reverse this decision because it will already have invested substantial effort in customizing and integrating Udemy’s platform with its other learning resources. Finally, the hybrid business model is less vulnerable to changes in legislation and will still generate a sustainable income stream even if instructors were to leave Udemy to share their skills on a competing platform.

Because the hybrid B2B model involves higher marginal costs per customer—due to the need for customization and customer support—it is less scalable than the pure sharing business model. However, apart from network effects, the hybrid business model could create an additional virtuous cycle between the two customer groups (individuals and businesses). Such virtuous cycles have been identified as one of the most important features of effective business models.27

In the first virtuous cycle, Udemy actively used its popularity in the consumer market as a competitive advantage in the corporate market by positioning its services on its website as “professional-grade online training vetted by 12 million people around the world.” Hence, the network of individual learners represented a valuable resource to business customers, and vice versa. Thus, the more individual customers the platform attracted, the more legitimacy it gained among business customers. In turn, attracting well-known brands as business customers allowed Udemy to gain further legitimacy in the consumer market.

Udemy’s hybrid business model will likely create another virtuous cycle between business customers and the supply-side participants (the instructors). Instructors will benefit from increased revenue opportunities. In turn, increased engagement by instructors will lead to a larger supply and thus increase the value to business customers.

We conclude that, overall, the hybrid business model provides Udemy with a much more stable path toward profitability and reduces its vulnerability to several of the risks associated with pure peer-to-peer sharing business models.

Recommendations for Sharing Economy Firms

Driven by the success of a few high-profile sharing economy firms, investors and entrepreneurs alike are keen to exploit the opportunities provided by the sharing economy. But because they focus on the success factors, many ignore the inherent risks in sustainably operating a business that does not own key resources, that depends on the voluntary contributions of independent actors and that operates in an environment with high regulatory uncertainty. Indeed, several sharing economy firms have failed even though their business models had the same characteristics that seemingly explain the success of the likes of Airbnb and Uber.

Scalability and network effects are necessary characteristics of successful sharing economy business models. Yet, the demise of Carpooling, Homejoy, Sidecar, Stayzilla and Beepi has shown that these characteristics are far from sufficient to develop a sustainable business model for the sharing economy. In fact, these characteristics can turn a virtuous cycle into a vicious downward

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spiral. To assess the economic potential of a sharing economy firm, it is necessary to compare sharing economy business models with each other, rather than only with traditional ownership-based business models in the same industry.

Our research, distilled in the mini-cases described above, revealed six causes of failure in the sharing economy. We recommend that managers of aspiring sharing economy firms take account of the risks inherent in these causes of failure when devising their sharing economy business models by asking—and answering—the questions listed in Table 3. We further recommend that the most effective business model will be a hybrid model, rather than a pure peer-to-peer sharing model. Table 3 also lists the questions that managers should ask when evaluating their current and developing a hybrid business model in the sharing economy.28

Concluding Comments

This article provides managers of aspiring sharing economy firms with guidance on developing business models that reduce risk in the long run rather than maximize short-term growth. We have identified the risks of falling victim to Survivorship Bias—i.e., the downsides of concentrating on the strategies and business models of successful, high-profile firms at the expense of learning from the silent evidence of business models that were unsuccessful.

In the next few years, we expect several new hybrid business models to emerge and further blur the boundaries between the sharing economy and traditional economies. Managers will find countless opportunities to succeed in the sharing economy if they learn from early failures, mitigate common risks and build hybrid business models that are not only scalable, but also financially sustainable.

Table 3: Recommendations for Evaluating and Innovating Business Models in the Sharing Economy

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Questions to Address</th>
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</table>
| **1. Evaluate risks and recognize potential sources of failure** | ● How likely are demand- and supply-side participants to change to competitors? Do they have sufficient incentives to conduct transactions on our platform?  
● Can we ensure a consistent quality level in the work of our sharing participants?  
● How much will it cost us to attract new supply-side participants once more competitors enter the market?  
● How frequently will participants return to the platform for subsequent transactions?  
● Which regulatory changes would threaten our current business model? |
| **2. Develop a hybrid business model** | ● How can we leverage the shared assets to target a new customer segment?  
● How can we develop a stable revenue model that is less vulnerable to market fluctuations?  
● Is the new business model complementary with the peer-to-peer sharing model? Does it create any virtuous cycles? |

28 An overview of tactics and practices to design and manage business models based on independent participants is presented in Täuscher, K. “Leveraging collective intelligence: How to design and manage crowd-based business models,” Business Horizons, December 2016.
About the Authors

Karl Täuscher
Karl Täuscher (Karl.Taeuscher@uni-bayreuth.de) is a research fellow in the strategic management and organization department at the University of Bayreuth, Germany. His research focuses on business models and competitive strategies of platform-based entrepreneurial ventures. He further explores how such novel organizational forms emerge and how they affect the markets and societies in which they operate. His research has been acknowledged with the best paper award at HICSS 2017.

Jan Kietzmann
Jan Kietzmann (jan_kietzmann@sfu.ca) is an associate professor of MIS, Innovation and Entrepreneurship at the Beedie School of Business, Simon Fraser University, Canada. His research interests combine organizational and social perspectives related to new and emerging technologies, including social media, crowdsourcing, user-generated content, 3D printing, gamification and sharing economies. He co-authored the award-winning article “Social media? Get serious! Understanding the functional building blocks of social media” and is an associate editor at Business Horizons.