

Changes in the Financial Industry: Adyen and Fintech

CASE STUDY

Although 2020 was a very difficult year for many companies, it was a very successful one for Adyen, a Dutch company that mostly focuses on processing Internet payments. As the COVID-19 pandemic boosted the volume of online payments, business soared. Adyen announced in November 2020 that it was expanding in the Middle East, opening a new office in Dubai. Earlier that year, Internet retailer Zalando chose Adyen to process its credit card payments in all European markets. Raffles Hotel Singapore selected Adyen as its preferred payment provider to offer a seamless and more customer-centric digital payment experience across all of the hotel's touchpoints. The company also signed a new agreement with Microsoft, expanding and deepening their cooperation on payments processing. These are just the latest in a long series of successes for Adyen. In 2018, American Internet giant eBay announced that Adyen would become eBay's primary payments provider. This was significant for two reasons. First, eBay is, of course, a huge company: in 2019, the value of goods sold on the platform amounted to a staggering \$90.2 billion. For Adyen, this meant a huge increase of its business. Second, and perhaps more importantly, eBay gave preference to Adyen over PayPal, which is very often the first choice of online companies. For a startup like Adyen to beat a market leader like PayPal was remarkable.

As a result of all these successes, Adyen has been the star of the Amsterdam stock exchange for several years. In 2018, Adyen had a very successful initial public offering (IPO) and its shares, which were priced at €240, nearly doubled in price during the first trading day. Since then Adyen's share price has continued to increase, reaching over €740 by the end of 2019. Then the coronavirus crisis broke and more and more people started to shop online and make payments through Adyen. The company's share price more than doubled over the following months and by December 11, 2020, it had risen to €1834.50.

What explains Adyen's success? The answer to that rests primarily in the technology it uses. To put it simply, Adyen makes payment transactions easier. Making payments on the Internet is a much more complicated business than many people think it is,

and requires several companies to work together to ensure that the payment is successful. To start with, there is, of course, the merchant, but there are also companies providing a gateway for the payments, assessing the risk, and so on. Because of this crowded field of facilitators, many things can go wrong. For instance, software may be outdated, or programs used by one provider may be incompatible with those of another.

According to Forrester, a market research firm that focuses on information technology, around 10 percent of all payments fail for "technical" reasons. Adyen is reducing this performance gap by integrating several components of the payment chain (such as the gateway, risk assessment, and processing) into one platform. It has thus been successful in ensuring a higher success rate in its payments chain than other facilitators.

Adyen's second advantage is that its payments platform is connected to most payment systems being used in the world. Payment systems can differ greatly from country to country. In the Netherlands, for instance, most online payments are done through the iDEAL system, which links payments to checking accounts. In other countries, most payments are done through credit cards or debit cards like Visa or Mastercard. When it comes to processing payments, this variety of methods complicates things enormously, as the payment processors need to have several platforms. Adyen, however, has one integrated platform that can link with most payment methods being used all over the world. This is, of course, an attractive option for merchants or online companies that sell their goods worldwide. When eBay decided to work with Adyen, it gave two reasons for its decision: Adyen processes payments more cheaply and gives more control to merchants that use the platform.

Adyen is a good example of a company that works in the field of fintech (financial technology). Companies that use technology to facilitate financial transactions have been highly successful over the last decade. Founded in 2006, Adyen is relatively old for a fintech company, but it has grown enormously—in 2019 it had €240 billion in processed volume. Remarkable as Adyen's case is, it is definitely not unique; other firms have used technology to find a

new niche in the international payments universe. The company TransferWise (which was founded in Estonia but now mostly operates from the United Kingdom) is another example: it facilitates money transfers from Country A to Country B while avoiding currency conversion.

Initially, traditional banks found it hard to compete with companies like Adyen. It is in the DNA of fintech companies to develop and focus on state-of-the-art information systems. Traditional banks are very different; they tend to value direct, physical contact with the customer and often have branches in various countries that function more or less independently. Their IT staff often has a supporting role and not, as in the case of Adyen, a guiding one. Traditional banks use IT systems to facilitate business operations, not to compete with other financial providers. Their IT systems are usually at the national level and may differ from country to country. The heart of Adyen is its technical platform, and the IT staff works continuously to make it cheaper and more user-friendly. The data received on this platform are analyzed and used to upgrade and update it. The data that Adyen gets are global (the platform processes payments from all over the world) and highly diverse (from payment transactions on the Internet as well as transactions performed in physical shops). This wealth of data ensures that Adyen has better opportunities to analyze the market of payment transactions and its developments than traditional banks do.

Fintech is a good example of what economists call “creative destruction.” This term, originally coined by the Austrian economist Joseph Schumpeter, describes the influence of technology on the economy. According to his theory, new technologies inevitably result in winners and in losers. One famous example of a disruption is the Spinning Jenny, a device invented in Britain during the eighteenth century. The Spinning Jenny made the production of cloth more efficient, cheaper, and—critically—reduced the number of laborers needed in the textiles industry. Over the last 30 years, the Internet has had the same effect: some jobs have disappeared, and others have come into existence. A good example is travel agencies. Forty years ago, there was a travel agency on every high street, but today, the vast majority of travel is booked online. Likewise, traditional hotels now have to compete with sites like Airbnb.

Creative destruction comes in waves, and the banking industry is now in the frontline of change because of the emergence of fintech companies. Adyen has

incorporated many stages of the payment chain, and traditional companies that used to provide, for instance, risk assessment now have to either make their business model more efficient or face the very real possibility of going out of business. The German firm N26 is also a good example of how fintech is changing the banking industry. This company provides payment services just like a normal bank does, but it does not have physical locations where customer agents give advice to the customers; everything is online. In 2020, N26 had over 5 million customers in 25 markets. One of its founders, Maximilian Tayenthal, remarked that traditional banks had not taken N26 seriously when the company was launched. See the Chapter 3 opening case for more information on N26.

Fintech companies that make online banking much easier have already had a huge impact on the physical presence of banks in many countries. The number of bank branches in Europe has declined dramatically, from 240,000 a decade ago to around 165,000 in 2020. In the Netherlands, the digital banking experience progressed so rapidly that the Dutch government felt it necessary to make it clear that it would not allow the loss of cash payments from the Dutch High Streets as this would severely limit the participation in society of vulnerable groups such as the elderly.

According to experts, the next wave of technology will be even more disruptive. In 2018, Antony Jenkins, who ran Barclays from 2012 to 2015, told the BBC that in the coming years around 50 percent of all jobs in banking (including those of middle managers and customer agents) would be replaced by some kind of artificial intelligence. Andy Haldane, the chief economist of the Bank of England, warned in the same year of a fourth industrial revolution that would cause severe disruptions in the job market, and at the heart of it would be artificial intelligence—a modern counterpart to the Spinning Jenny.

This does not mean that success is automatically guaranteed for new companies like Adyen and TransferWise. Research shows that around 90 percent of new fintech companies go bankrupt without ever having been profitable. Many require large investments of capital before they can generate profits. Even when they generate profits, these are often, for a time at least, rather small. Fintech companies are now also being challenged by the major traditional banks, who are rapidly developing their own versions of online payment systems, from peer-to-peer payments for retail customers, to highly automated online payment and billing systems for global businesses.

As consumers and firms have moved towards mobile and online payments, many traditional banks have invested heavily in new technologies in part using the funds saved by closing down traditional physical bank branches. Where in-house innovation has not worked, the large banks have purchased fintech firms and folded them into their existing business and technology platforms. Traditional banks have a decided advantage over fintech startups: extraordinary cash flow and tens of millions of loyal customers and firms. In this scenario, fintech firms have been early to the party but typically do not survive to the end of the party, at least not as independent firms.

Adyen's founders were very experienced entrepreneurs when they started their company. They had already created another company, Bibit, which they sold to The Royal Bank of Scotland for €100 million. Indeed, the word adyen means "again" in a language from Surinam, meaning that Adyen is their second endeavor in the field of financial technology. Adyen appears likely to be one of the survivors. The volume of payments it processes has grown from €32 billion in 2015 to €240 billion in 2019. Adyen's revenues during this time period have also grown, from €98.5 billion in 2015 to almost €500 billion by 2019. Unlike many fintech company, Adyen has also been able to show a profit, with net income rising from €131 million in 2018 to €204 million in 2019, up 56 percent, and with

expectations that it will surpass all of those benchmarks for 2020. Adyen illustrates how fintech startups are changing the traditional bank and payment systems using new technologies and business models.

Sources: Bernard Vogelsang, "AEX Lager Het Weekend In Door Brexit-Zorgen," *Telegraaf*, December 11, 2020; "Adyen Breidt Samenwerking Met Microsoft Uit," *deaandeelhouder.nl*, December 10, 2020; Ayden, "Raffles Hotel Singapore Takes Its Legendary Guest Experience to the Next Level with Adyen," *www.adyen.com*, November 24, 2020; Robert Vink, "How Adyen Is Simultaneously Disrupting Banks and the Payments Industry," *www.seekingalpha.com*, November 18, 2020; Adyen, "Adyen to Expand in the Middle East, Opens Dubai Office," *www.adyen.com*, November 10, 2020; Ben Dummet, "A Little-Known Payments Provider Grows into One of Europe's Most Valuable Finance Firm," *Wall Street Journal*, November 16, 2020; "Quarter of Bank Branches Will Close in Coming Three Years," *Consultancy.uk*, September 14, 2020; Adyen, "Adyen to Process European Credit Card Payments for Zalando," *www.adyen.com*, August 13, 2020; Ryan Browne, "Fintech Firm Adyen Posts 34% Surge in First-Quarter Revenue as Coronavirus Bolsters Online Payments," *www.cnbc.com*, April 21, 2020; Adyen, "2019 Annual Report," *www.adyen.com*, March 24, 2020; eBay Inc. Reports Fourth Quarter and Full Year 2019 Results," *www.ebay.com*, January 28, 2020; Tomasz Gryniewicz, "This Fintech Attracts 10,000 Customers a Day," *www.netguru.com*, December 4, 2019; Kamal Ahmed, "Bank of England Chief Economist Warns on AI Jobs Threat," *BBC News*, *www.bbc.com*, August 20, 2018; Jan Hammer, "Adyen: A Global Success Born in Amsterdam," *Index Ventures*, *www.indexventures.com*, June 13, 2018; "Bank Jobs Could Fall by 50% in 10 Years, Says Ex-Barclays Boss," *BBC News*, *www.bbc.com*, November 26, 2015.

CASE STUDY QUESTIONS

- 1-12** According to Adyen, the payments platform has two advantages compared to other payment platforms. Describe these advantages in your own words.
- 1-13** Many fintech companies are very valuable on the stock exchange even though they make little or no profit. Explain this situation. Why

do investors pay so much for shares of companies that hardly make any profits?

- 1-14** Explain the term "creative destruction." Is the German bank N26 destroying jobs or creating new jobs?
- 1-15** Explain why such a high percentage of fintech startups go bankrupt before making any profits at all.

Case contributed by Bernard Bouwman