

19 Business Moats That Helped Shape The World's Most Massive Companies

2019



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A business moat is a key competitive advantage that sets a company apart from its competitors. From Amazon and Uber to Starbucks and Disney, here are how 19 of the world's biggest companies have built and defended their moats.

What do companies like Amazon, Uber, and Starbucks have in common?

Among several shared characteristics, these companies thrive by understanding, building, and strengthening their business moats — the key competitive advantages that set them apart.

Warren Buffett helped popularize the concept, saying a company's moat (or lack thereof) means everything when deciding to invest in it:

“The key... is not assessing how much an industry is going to affect society, or how much it will grow, but rather determining the competitive advantage of any given company and, above all, the durability of that advantage.”

Companies can build moats by strengthening their brands, achieving economies of scale, or even lobbying for special status from the government. In return, they can receive customer loyalty, pricing power, and legal protections that make it difficult for other companies to compete with them.

In the 20th century, the biggest companies in the world were built on moats of economies of scale or government. Standard Oil, for example, built its monopoly by buying up smaller competitor refineries and building a global distribution network. Eventually, the company controlled about 90% of all the refineries and pipelines in the United States, and could set its own prices.

Today, however, the most durable moats are being built on different types of advantages, such as network effects, data, and repeat engagement within a product ecosystem.

Google, for example, started its moat by developing a better algorithm for indexing and searching the internet. The company has since strengthened that moat by putting that advantage to work in transportation, shopping, and most importantly, advertising.

Below, we look into 19 examples of business moats and dive into how they work.

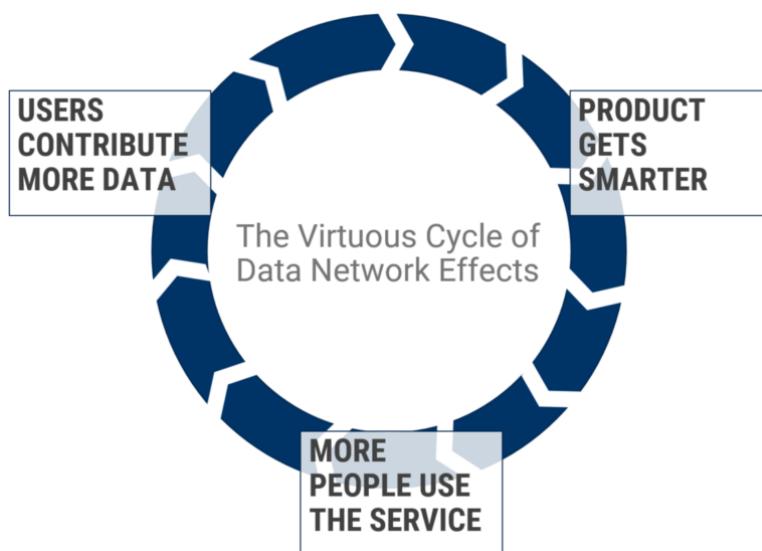
The examples below were chosen according criteria such as size, business success, and ability to illustrate the mechanics and advantages of a particular type of business moat. Many of these companies could fit into multiple categories of business moat, even though we only list one per company.

Network effect moats

A product has a network effect when its value to its users increases in proportion to its use.

For example, the telephone wasn't very useful when only a handful of first adopters had one. The more people that acquired telephones, however, the more useful it got. Once virtually everyone had a telephone in their home, it became indispensable.

The same logic has powered the growth of social networks, which are extremely sticky if all of your friends are on them – and useless if they're not.



Because network effects can allow a product to gain wide utility fast, they can help companies build formidable business moats. A product with strong network effects can be extremely difficult to dislodge, though not impossible if a competitor project is better at leveraging network effects (MySpace's fall to Facebook is one high-profile example of this).

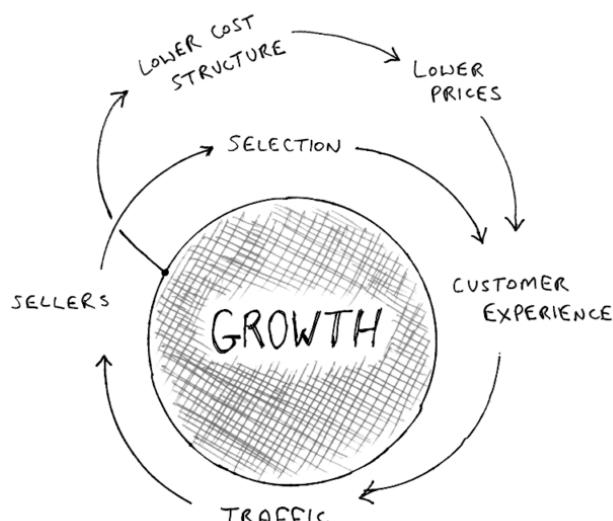
Companies that build products with network effects can generate a few different kinds of business moats around their companies, depending on how their network effects work.

MARKETPLACE NETWORK EFFECT

Marketplace network effect moats exist when a company derives a durable competitive advantage from bringing together customers and suppliers in some kind of marketplace.

In the best-case scenario, aggregating the supply and demand for a given good or service creates a self-reinforcing cycle of growth built on network effects. As more competing suppliers join the marketplace, customers find that it provides more efficient and less expensive service.

As more customers are drawn to the marketplace for its quality or low prices, more suppliers join, driving further competition and growth.



Amazon's flywheel.

Leveraging marketplace network effects, Amazon was able to reduce prices, expand inventory, and decrease shipping times, growing from a small online bookstore to the dominant global ecommerce marketplace.

DATA NETWORK EFFECT

Data network effect moats exist when a company can gain a competitive advantage by gathering user data and making that data more valuable.

In a product with a data network effect moat, there is a "central repository" of data, as Andreessen Horowitz's Alex Rampell calls it. The more people adding to this repository, the more useful it becomes. Companies can use that data both to attract other users to the platform and to build better algorithms to provide a better product.

Google, for example, built its competitive advantage on its search algorithms, and then built a moat by applying that advantage to its advertising capability.

PLATFORM NETWORK EFFECT

Platform network effect moats exist when a company builds a durable competitive advantage by keeping its users engaged in its product ecosystem.

Platform network effects are generally built on one product – for example, the iPhone, or Windows – that becomes core to a user's life or work. New products that are released – such as the App Store, or Microsoft Office – both reinforce the core product's initial value and layer more value on top of it.

Each successful new product makes staying in the ecosystem more valuable, increases the cost of switching, and keeps users' attention and money within the platform.

DURABILITY IS KEY

These three techniques – aggregating suppliers and customers, collecting valuable data, and building a product ecosystem – won't always result in a moat. History is full of companies that have built temporary advantages based on network effects that then fell.

Moats are made of durable competitive advantages, and durability hinges on a number of factors, including:

- **User acquisition:** whether the cost to acquire new users, customers, or suppliers decreases with scale
- **Switching costs:** whether it is cumbersome or expensive for customers to switch to another company for the same service
- **Engagement:** whether the product becomes stickier and more engaging as it grows

The better any product with network effects can optimize its cost of user acquisition, capitalize on high switching costs, and increase engagement, the more likely it is to be able to maintain its user base and fend off competitors.

1. Marketplace

The virtuous circle that made Amazon an \$850B business

While Amazon's dominance has been built on a variety of moats, its central business advantage comes from harnessing the marketplace network effects that come from aggregating suppliers and customers.

Amazon recognized early on that the more people in its network — both suppliers and customers — the lower the prices it could offer to buyers. Lower prices meant a better customer experience that attracted more customers; more customers attracted more sellers; more sellers meant a better selection of goods and prices; better goods and prices created a better customer experience; and so on.

Over time Amazon has expanded into new retail verticals, added features, and even created marketplaces that compete with its own marketplace — all in the pursuit of increasing user engagement and fueling a virtuous circle of growth.

In the late 1990s, Amazon first began expanding from books to other media products, like CDs, movies, and other electronics. A few years later, Marketplace launched, giving third-party sellers the ability to sell products alongside the Amazon listing.

While the Marketplace technically may have cannibalized Amazon sales, it served the purpose of the Amazon flywheel by reinforcing for customers that Amazon was the best and cheapest place to shop.

Bringing in more customers through better functionality and growth into new verticals, Amazon used the growth that resulted to bring in more suppliers, who began to see Amazon as the best way to reach a global customer base and increase their revenues.

In 2005, Amazon used its newfound capabilities in shipping and logistics to start its Prime program, offering free 2-day shipping inside the contiguous United States for an annual price of \$79. Prime made Amazon delivery faster than virtually any other e-commerce outlet, and created an inflection point in the company's growth. As of 2019, membership in the Prime program is at about 103M in the United States.

“I want to draw a moat around our best customers,” Bezos said while Amazon was planning Prime. “We’re not going to take our best customers for granted.”

In 2006, Amazon launched Amazon Web Services in earnest with the release of Elastic Compute Cloud. After improving its own back-end in order to better scale up its computing power, Amazon then was able to make that same power available to startups and other customers.

Today, AWS is Amazon's second-largest source of revenue. With the growth of AWS, Amazon's computing power rose, and its unit costs on renting that power out to others fell.

Amazon continues use its profits to lower prices, increase supply, and build a better customer experience — feeding the fundamental flywheel that helped it become the biggest online retailer in the world.

For example, in June 2017, Amazon announced that it was acquiring Whole Foods for \$13.7B. Immediately, the company lowered prices on high-volume Whole Foods items and threaded in Prime membership discounts. Whole Foods deliveries are also available at no extra cost through Amazon's Prime Now service, giving Prime customers the extra benefit of groceries on demand.

When Amazon enters a new market, it does so with its formidable scale, massive user base, and a willingness to duke it out in industries with razor-thin margins — a strategy that has allowed it to grow from a small bookseller to a true Everything Store.

2. Marketplace

How OpenTable created a monopoly by giving restaurants a 'single-player mode'

OpenTable's domination of the online restaurant reservation market has been built on its ability to attract a critical mass of restaurants and diners to its platform.

OpenTable's simple online interface offered diners a more convenient way to make a restaurant reservation, while also offering restaurants a more efficient way to manage reservations, get more customers through the doors, and deal with the industry's famously thin margins.

While most products with network effects aren't useful until there are many people on the network (like the telephone), OpenTable started out by building and selling a piece of software that delivered value even without any customers involved — a strategy that a16z partner Chris Dixon calls "single player mode."

"The first million people who bought VCRs bought them before there were any movies available to watch on them. They just wanted to 'time shift' TV shows – what we use DVRs for today. Once there were millions of VCR owners it became worthwhile for Hollywood to start selling and renting movies to watch on them..."

Thus, a product that eventually had very strong network effects got its initial traction from a 'standalone use' – where no other VCR owners or complementary products needed to exist."

The original OpenTable app for restaurants was essentially an electronic reservation book for restaurants that made the day-to-day work of turning over tables more straightforward and less error prone.

The app also became the necessary foundation of the reservation tool that would follow, since so few restaurants had digitized back-ends. When the OpenTable team successfully pitched restaurants on this software, they were also successfully pitching the idea of putting a networked computer inside the restaurant.

The more restaurants OpenTable got to use that software, the more attractive the idea of an online reservation system became for both the demand and supply side of the marketplace. More restaurants meant more choice for consumers. More choice attracted more consumers, which gave restaurants more business.

The idea took off, and by the time OpenTable went public in 2009, the company was claiming that a third of the 30,000 reservation-taking restaurants in America were OpenTable customers.

OpenTable also benefitted from making its product a core part of everyday operations. The company put a proprietary software terminal in the thousands of restaurants that signed up to use the service. That terminal became used for regular operations (not just OpenTable), creating a significant barrier to entry for other companies hoping to edge into the restaurant reservation market. To give up OpenTable, a restaurant would have to toss out a major piece of infrastructure, not to mention a source of traffic.

The difficulty of switching to a competitor platform has allowed OpenTable to establish a highly favorable take rate: OpenTable charges restaurants \$249 per month for its platform, plus \$1 per reservation. OpenTable even charges a 25-cent fee for customers who make reservations through a restaurant's website directly.

While these rates fueled OpenTable's significant growth through the early parts of the 2000s, they have also prompted a wave of disruptive startup competitors like Resy, launched in 2014.

While OpenTable remains the tool of choice for booking reservations at Michelin Star restaurants, Resy and other tools are gaining ground when it comes to smaller and newer restaurants — suggesting that OpenTable's moat was showing some vulnerabilities among newer restaurants not already locked into its platform.

But even as new competitors emerge, OpenTable still has a big advantage when it comes to scale. For about a decade, OpenTable was essentially the only player in the restaurant reservation market, giving it a huge head start on acquiring customers and restaurants.

3. Marketplace

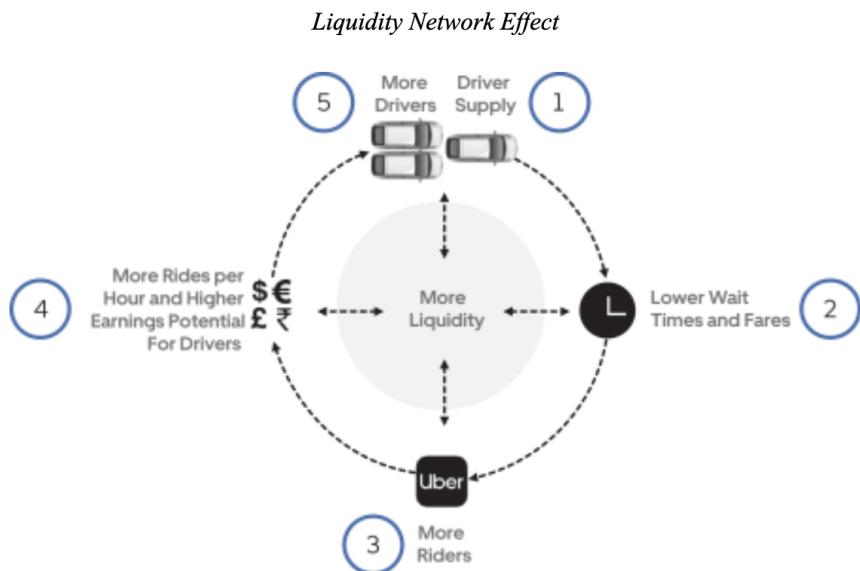
How Uber dominated ride-sharing by owning supply and demand

Uber has become an archetypal example of a company built on aggregating supply and demand.

Early on, Uber attracted independent drivers (the supply) to its platform by offering a guaranteed source of customers. For drivers without a central dispatcher, it could be difficult to find fares, and drivers would often have to idle near hotels and airports to make their living. With Uber, those drivers could pick up fares at any time, giving them a way to make money during the dead time between pickups.

At the same time, Uber attracted users (demand) by providing them with a guaranteed driver. When cab services dominated non-public transportation, it could be challenging even in major cities to find a ride during non-optimal working hours or bad weather (research has shown an average of 7% less cabs on the road when it rains in New York City).

To ensure that a ride was always available when a potential fare opened the app, Uber used a model that would become known as surge pricing. During times of higher demand, prices on rides were raised, increasing the supply of drivers and increasing accessibility for the demand side.



Bringing these two sides of the marketplace together created a virtuous circle of growth.

With every new driver that Uber added to the platform, the geographic reach of the app increased: there were more drivers in more places, meaning a shorter wait for a ride for Uber customers.

The shorter the wait for a ride, the more users that Uber could attract. The more users Uber attracted, the more drivers it attracted too — further decreasing time-to-ride and increasing geographic reach.

Uber's ability to aggressively add drivers and riders to its platform through marketing and promotions kickstarted those network effects in each new market it entered, and the virtuous circles that resulted drove the company's fast growth around the world.

Uber's quarterly net revenue

\$M, 2014 - 2018



Source: cbinsights.com, Uber company financials

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Uber's power over supply and demand — the guaranteed, fast, cheaper-than-a-cab rides that it can offer both customers and drivers — has been its key competitive advantage against competing rideshare companies.

As smaller competitors have emerged to challenge Uber in local markets, Uber's ability to manipulate its own supply and demand economics have helped it stay competitive. When fighting Juno and Gett in New York City, for example, Uber simply upped its driver incentives and discounted rides for Uber customers. That brought drivers — some of whom worked for simultaneous services — back to Uber, where they could make more money. It also brought customers, who could easily use either service, back as well.

That strategy has been less effective against Lyft, which has become increasingly able to offer similar incentives within its marketplace, competing with Uber on price and driver availability. Since there's little friction for drivers or users to switch between apps, there's little keeping someone from choosing one app over another.

Ultimately, to win against Lyft, Uber is betting not only on its marketplace moat, but also reinvesting in its brand, hoping that its familiarity can give it an edge in a newly commodified rideshare industry. It is also investing in various other services and verticals including, such as e-bikes and food delivery.

4. Data

How Google used its search expertise to build a wide data moat

Google's powerful data moat started with a single technological innovation – better web search – that gave the company a formula for disrupting a whole range of other services.

Larry Page and Sergey Brin developed the PageRank algorithm while PhD students at Stanford. Unlike existing site-ranking algorithms that prioritized sites containing certain keywords, PageRank assessed a site's relevance according to the number of times it had been linked to by other websites.

This relatively simple difference quickly made Google the dominant internet search engine. By June 2000, it was Yahoo's new default for search, and in 2004, the company went public in a deal that gave Google a market capitalization of more than \$23B.

Over time, Google's dominance over search and the data gathered from it have allowed the company to build a powerful, durable competitive advantage in advertising. More than 3.5B searches take place on Google every day, making it the most popular website in the world.

Another factor that makes Google attractive for advertisers is that so many searches are made with the intent to buy a good or service. Airlines can advertise their flights when people search "flights to Miami," bookstores can advertise their hours when people search "bookstore Brooklyn," and so on.

Today, Google has about a 37% share of the entire \$130B digital ad market in the United States, according to eMarketer. For programmatic advertising done through ad servers, Google has 70% market share.

The company's dominance of advertising is so complete that 48 of 50 US states have decided to launch an antitrust investigation against the firm, alleging that its control of advertising markets has led to anti-competitive and harmful effects for consumers.

However, Google isn't relying solely on its advertising moat to stay competitive.

The company also leverages its ability to constantly acquire new data about what people are searching for to improve search and build further moats in areas like transportation and shopping.

The most powerful differentiator for Google here is that the company can pair search information with other data sources it has access to, like mobile location data from the Google app.

The result is a layering of value. Search the name of a business on Google, and you can quickly see not just what time it's open, but what times of day are busiest — data Google has from mobile users visiting that location.

With its maps products like Waze, Google is constantly recording where people are on the road, where they're headed, and how long it's taking them to get there, generating a highly accurate real-time traffic map. When a user encounters a speed trap or slowdown, that information can then be transmitted to every other user of the app, making the experience better for everyone.

The deeper Google penetrates different facets of its users' lives, the better it becomes at serving users, and the more personalized results it can serve up. This personalization makes users less likely to want to give up that convenience and go to another provider.

Type in "weather" into Google, and you can instantly get a forecast for your specific area. Type in "movies," and you'll see movies playing near you. Type in "plumber," and you get a list of plumbers that are not only local, but "Google Guaranteed" – meaning Google will reimburse you if the job isn't done properly.

This data flywheel also feeds Google's advertising flywheel. As Google's involvement in users' lives gets deeper and more personalized, the targeting and personalization it can offer becomes more valuable for advertisers as well.

Google has largely been able to maintain its search superiority, both by offering "smart personalized results and by retaining its status as the built-in browser on as many devices and operating systems as possible.

However, vulnerabilities in Google's search moat have already appeared. Today, for example, more product searches begin on Amazon than do on Google.

The main source of potential disruption to Google's data moat over the next several years will be companies like Amazon, Yelp, and Expedia, which aim to offer deeper, more personalized search results.

5. Platform

The OS ecosystem that made Apple a \$1T company

Apple has famously built a business with huge profit margins in an industry that's infamous for being difficult to make a profit in: mobile phones.

While the iPhone has been hailed for its design and functionality, the real engine of the iPhone's success has not been the phone itself, but the operating system inside it and the ecosystem around it.

The durability and stickiness of the Apple ecosystem comes down largely to iOS and the ways that it incentivizes users to stick around.

A first major lever that Apple used to keep people in its ecosystem was iTunes. The offering kept users around by becoming their definitive system for digital music, as music bought on iTunes could only be listened to on iTunes.

Another level was iCloud, which became the clearinghouse for all personal data. While migrating from iCloud to another service like Dropbox is possible, it doesn't make much sense if your primary computing device is an Apple computer.

Then there's the App Store, which keeps users around by being the access point for millions of applications.

On the hardware side, there are products like Apple TV and AirPods, which become more valuable when you have an iOS product to connect them to.

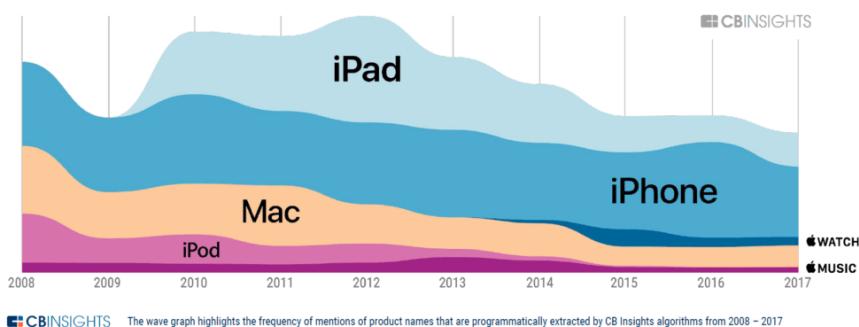
Every new product and service in the Apple ecosystem is designed to drive value for people using iOS and reinforce the value of staying inside the ecosystem.

The result has been a significant diversification in the products that Apple sells in large numbers. In January 2019, Apple CEO Tim Cook announced the company had 1.4B installed devices around the world between iPhone, iPod Touch, Apple Watch, Mac and Apple TV, with only 900M of those being iPhones.

But of all those products, the iPhone still drives a majority of the company's revenue, and most of the company's attention still comes down to that cash cow.

iPhone reigns supreme; other products wane

| A couple of blips aside (iPad in 2011/12, Watch in 2015), Apple is all iPhone, all the time



As the iPhone begins to peak as a revenue driver for Apple, continuing the company's platform growth and bringing iOS and iPhone users into other high-margin products will be a crucial future strategy for the company.

6. Platform

How Facebook's control of the social graph made it hyper-durable

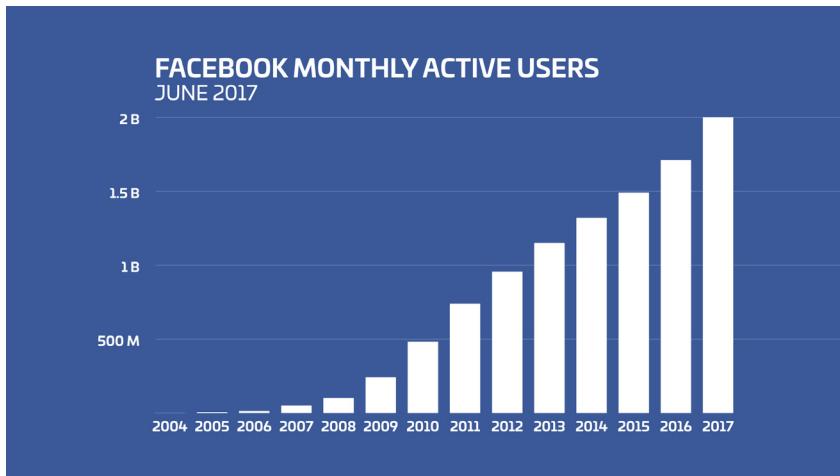
Facebook is one of the fastest-growing tech companies of all time, largely because of the power of the network that it's been able to build.

When Facebook first launched, there was little individual use to the tool – it lacked "single-player mode." The value emerged as the network grew. The more friends a user had on Facebook, the more value the user could get out of it.

At first, this value was mostly limited to being able to read friends' answers to the questionnaire that Facebook gave new users, browse their Walls, and send "Pokes."

But Facebook layered more and more value on top of this simple social register over time, and because it controlled all the data, the company gained control of a deep moat built on network effects.

The first big feature Facebook added to its platform was Photos, which instantly became a powerful growth mechanism because of its tagging functionality. Every time a user uploaded a new photo and tagged their friends, those people were notified about it.



Not only did these notifications drive users to Facebook to see photos; it also taught new users how to use Facebook.

“Think about photo tagging on Facebook. When you get that notification, there is no way you’re not gonna check it out, because it’s a picture of you. Meanwhile, getting that notification teaches you that tagging photos is possible. Instead of Facebook explaining that you should upload photos and tag people, they just showed you.”

— STAN CHUDNOVSKY, HEAD OF PRODUCT FOR MESSAGING AT FACEBOOK

Successive features that Facebook added, from Groups to Messenger, created similar kinds of viral value for Facebook's users. They created new triggers to bring new people into the Facebook ecosystem, such as receiving an invite to a private group or receiving a message request.

By getting increasingly involved in users' social activities, Facebook also decreased the likelihood that its users would ever be able to leave the platform after joining up.

Today, this dedication to data has led Facebook to acquire other properties – most importantly Instagram – that use the Facebook social graph in order to build out users' network of friends and followers.

While overall use of Facebook's core product may be decreasing, it's still the biggest social network in America for everyone twelve and up, giving the company a competitive advantage when it comes to launching new products. Instead of having to build a new product from scratch, Facebook can use its social graph to compete with virtually anyone – for example, by immediately releasing copycat features like Instagram Stories to a bigger base of users than Snapchat had overall.

Cost moats

Many of the biggest and most durable business moats in history have been built on an advantage related to cost.

While it took GEICO decades to become one of the biggest insurers in the American market, its massive advantage over other insurers on cost — achieved by cutting out middlemen and selling insurance directly to consumers — has today made the company worth around \$50B to Warren Buffett's Berkshire Hathaway.

Companies with an advantage on cost can generate several types of business moats, differentiated mainly by different approaches to consumer psychology.

SWITCHING COST

Switching cost moats exist when a company sells a product its users need or trust too much to switch providers.

A company with a switching cost moat can drive its prices (and profits) upward as long as the cost to the customer does not exceed the cost of switching to a competing provider. Even in cases where the cost does exceed the cost of switching, stickiness (especially in enterprise products) can help defend the moat.

SUNK COST

Sunk cost moats operate by eliciting a significant one-time or repeating payment from a customer, the size of which is big enough to dissuade that customer from leaving for a competitor later.

In this case, a consumer's perception of "choice" is limited by the upfront investment they've already made in a product, creating customer lock-in (and an accompanying moat).

COST ADVANTAGE

Cost advantage moats exist when companies build more efficient manufacturing or distribution and use that to offer lower prices than competitors.

The power of this type of moat depends largely on how well those costs come down with scale. If a company can continually lower prices as they grow, it can create a self-perpetuating circle of massive growth.

7. Switching cost

How IBM used the psychology of fear to own back-end technology for decades

For more than 50 years, IBM held a competitive advantage built on fear.

IBM's dominance in computing, and the paranoia the company fostered, created a business environment where switching to an IBM competitor was almost unheard of.

But it took time for the company to find the stability that would allow it to sell itself as the most reliable vendor in computing. First, IBM had to invent a mainframe that would make it cost-effective for companies to stick with it over long periods of time.

The IBM 1401 was the early centerpiece of the company's mainframe business. But it had one big problem: it didn't offer users enough processing power. To get more, customers had to upgrade, either to a better IBM machine or to a competitor's mainframe.

Because IBM systems weren't interoperable, options were essentially equivalent from a cost point of view. Either one would have required users to rewrite all their software.

This was a massive problem for IBM from a business point of view, because it meant the company would have to prove itself again with each new iteration of computers that it manufactured. Customers could easily decide defect to a different mainframe provider, since buying a new IBM mainframe and going elsewhere cost the same amount of money.

To change that, IBM set out on a multi-year project to build a new, interoperable base mainframe — something that customers could upgrade to without having to rewrite all their software. Later, IBM could release updates onto that mainframe, allowing their customers to add more processing power without having to buy a whole new machine.



The IBM System/360

The System/360 was IBM's most successful computer ever, and a massive inflection point for computing as a whole. A month after release, more than 100,000 were purchased around the world. (For context, at the beginning of that year, there had only been about 20,000 total computers installed in the UK, Western Europe, the US, and Japan, according to the IEE.)

Not only did the System/360 give companies that were considering competitors a reason to instead stick with IBM; it also made computers more accessible for companies that hadn't yet taken the plunge, since they could now buy a smaller System/360, assured that they would be able to upgrade later if necessary.

Suddenly, choosing – and staying with – IBM became the logical decision for data centers and purchasing departments around the world. And over time, IBM developed a sales strategy that drove home that logic, leveraging IBM's size and reputation to great effect.

That strategy, as explained by chief System/360 architect Gene Amdahl, was all about creating "fear, uncertainty, and doubt."

Salespeople would explain to leads that they would never be criticized or questioned for sticking with IBM, and that their other peripherals and equipment might not work with a non-IBM mainframe.

As software developer Eric S. Raymond explains:

"The implicit coercion was traditionally accomplished by promising that Good Things would happen to people who stuck with IBM, but Dark Shadows loomed over the future of competitors' equipment or software."

This strategy drove customers away from competitors and back to IBM. But none of it would ever have been possible if IBM had continued playing the same game it was playing in the early 1960s, competing with other manufacturers to build the best possible mainframe with each new release cycle. With the System/360, IBM became more than a mainframe manufacturer — it became the dominant developer of operating systems, software, applications, and services.

It's no coincidence that IBM's greatest struggles since have come with the introduction of cloud computing, which has made operating systems, software, applications and services into a commodity.

While IBM CEO Sam Palmisano declared in 2010 that you couldn't do what IBM was doing in the cloud, today businesses are increasingly turning to cloud services and technologies from Google, Amazon, and Microsoft, suggesting some weaknesses in IBM's switching cost moat.

8. Switching cost

Why ADP is still America's biggest payroll services provider

Automatic Data Processing (ADP) is one of the largest human resource management companies in the world, with almost 750,000 clients around the world.

It also has a deep switching cost moat that has given it a highly privileged position in its market.

Today, ADP has to spend only 1.5% of its more than \$13B in yearly revenue to run its business.

ADP has become indispensable to thousands of businesses around the world mainly because it handles two of the most mission-critical tasks inside an organization: payroll and taxes.

In addition to handling compliance and reporting, ADP offers various other value-add services (like freelancer management), which further embed customers in the ADP ecosystem.

Handling payroll and taxes means there's an inherent element of switching aversion at play – companies that trust ADP to handle their most sensitive documents are going to have a higher threshold for switching than they would with a less mission-critical relationship.

Another factor protecting ADP's moat is the fact that over the last 15 years, both payroll and taxes have become significantly more complex, increasing the likelihood that businesses will want to come to a company like ADP to minimize their risk.

ADP's customers trust ADP to keep them in compliance with complex legislation like the Affordable Care Act. The increasing complexity of compliance creates an IBM-like response to the question of payroll: "No one ever got fired for buying ADP."

However, threats to ADP's dominance are emerging.

One is that the cost advantage ADP once enjoyed has lessened, with new players like Gusto and Intuit emerging with lower-cost models designed to attract smaller companies and startups to their payroll platforms.

The other is the proliferation of increasingly sophisticated payroll software, making ADP's value proposition of helping companies navigate the complexities of payroll less and less valuable.

While the switching cost moat has helped ADP maintain its profitability and growth, it isn't impenetrable. Today, the two ends of the size spectrum see most defections from ADP: either from small businesses that won't incur much cost from switching, or from huge businesses that can negotiate better rates with other providers.

9. Sunk cost

The business model that made Gillette a \$57B company

When Gillette first started selling its safety razors with disposable blades in 1903, the innovation of replaceable blades immediately made shaving more convenient, eliminating the need to send razor blades for sharpening.

It was also the beginning of a powerful business model, built on the principle of sunk cost.

The “razor blade business model,” as it is now known, refers to any business that operates on a combination of low- and high-margin purchases. A low-margin product is priced low enough to attract as many people as possible, while a high-margin product is priced just high enough to create healthy profits.

Repetition is the key here. After a customer makes the low-margin purchase, they must make the high-margin purchase continuously. The initial investment psychologically primes customers to keep buying because they've already spent money, limiting consumers' theory of their own choice.

In other words, people who buy cheap Gillette razors tend to keep buying Gillette blades. Over time, because those customers keep generating high-margin revenue and have an in-built tendency to stick around, a moat is created.

Protecting that moat means reinforcing the value of the product and the brand name, which Gillette has done largely through offering new products.

New razor systems serve a dual purpose for Gillette. First, they reinforce the value of the Gillette razor, encouraging people to maintain the investment they keep making in the products. Second, each iteration that increases the number of blades generates a new, more expensive blade that can drive more revenue.

Gillette has also sought to protect its moat through advertising. Since the 1930s, Gillette has been one of the biggest names in advertising, especially through sponsorships of US sports.

However, Gillette didn't pursue a razor-and-blades strategy in its earliest years. Instead, it priced both its razor and blades at a high cost. It took the expiration of Gillette's razor patents and the subsequent emergence of new competition for the company to pivot into the strategy that would make it successful.

A hundred years after the first Gillette razors appeared on the market, Gillette was still the clear market leader in the space, selling about 5x as many razors as any other company.

However, Gillette still faces several challenges in the years to come.

One challenge is cultural. There is less social pressure to shave, for both men and women, than at virtually any time since Gillette was founded. As a result, the shaving and hair removal tools market fell an estimated 4% in 2018 year-over-year and is expected to be stagnant for about the next half-decade, according to market research firm Mintel.

The other major threat Gillette faces is competition with new kinds of business models that don't rely on sunken costs — most notably, Dollar Shave Club and Harry's.

Because these startups sell blades directly to consumers rather than primarily through retail, they have been able to sell at a lower cost than Gillette and other big-box competitors. In 2017, Gillette decided to cut its own prices about 12% on average, apologizing to consumers in a corporate blog post.

Ultimately, while Gillette is still the largest force by market share in shaving, it is no longer the only powerful player, nor the one with the most momentum: P&G acquired Dollar Shave Club for \$1B in 2016, and Harry's was sold to Schick for \$1.4B in 2019.

10. Cost advantage

Why Geico going D2C made it Warren Buffett's favorite stock

The Government Employees Insurance Company was founded in 1936 to sell insurance to government employees, which were considered a less risky pool of customers than the general public.

From this simple beginning came a critical business model decision. Because Geico's target market was so small, founders Leo and Lillian Goodwin decided they should market directly to consumers via mail rather than through brokers, as was traditional.

The basic advantage that GEICO discovered was that marketing directly to consumers gave the company a significant amount of leverage on price. Over the next several decades, the decision to go direct-to-consumer would propel GEICO to become the fifth-largest auto insurer in the country.

“The ultimate key to [GEICO]’s success is its rock-bottom operating costs, which virtually no competitor can match.”

— WARREN BUFFETT

Those rock bottom operating costs were passed along to consumers, driving GEICO's growth in the 60s. The company hit a million policyholders in 1964, \$150M in insurance premiums in 1965, and \$13M in net earnings in 1966.

GEICO suffered some blowback from its aggressive growth in the ensuing decades, but the company's policyholder count recovered to hit 8M by 2007.

GEICO's main value proposition was always the fact that it could offer a lower cost on a commoditized product. With auto insurance, most buyers' primary consideration is saving money.



One of the first changes that Buffett enforced after Berkshire Hathaway finished its acquisition of the company in 1995 was increased spend on advertising. The idea was that to protect its cost advantage moat, the company should invest in brand, building an emotional connection with customers to ensure that it remains the top-of-mind choice for low-cost car insurance.

The head start GEICO gained through its marketing and pricing strategy has allowed it to spend more freely than any of its competitors. In 2011, GEICO spent 6.5% of its premiums on ads. (Of the other 5 biggest car insurers, none spent more than 5%.) Progressive, the other major direct-to-consumer insurer that spends heavily on advertising for brand awareness, continues to be the company's biggest competitor.

11. Cost advantage

How Amazon Web Services built an impenetrable economy of scale

Amazon Web Services (AWS) had a [big head start](#) in developing a cloud platform over its competitors.

AWS publicly launched in 2006 — 2 years before Google launched its competing Cloud, and 4 years before Microsoft launched Azure. That head start paid off.

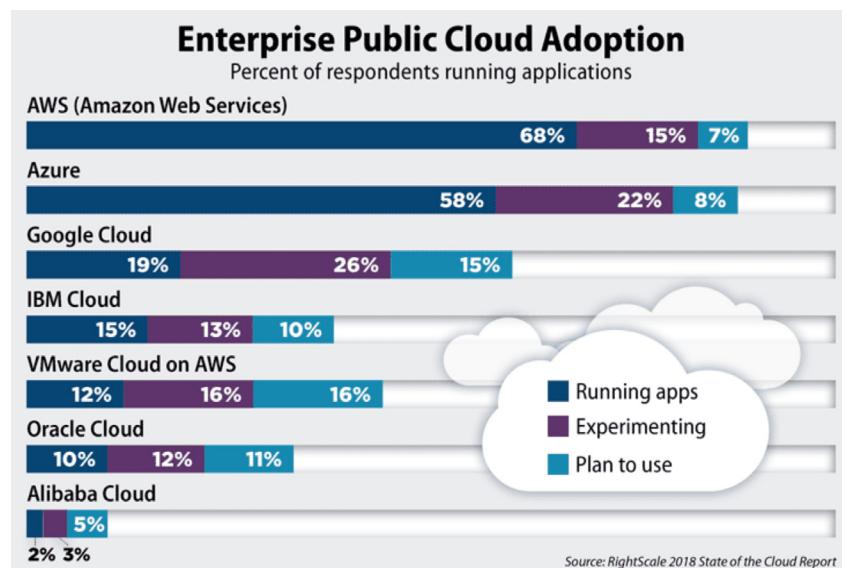
Today, roughly a third of activity on the internet takes place on AWS-hosted sites, and the service generates more than \$25B a year in revenue.

The original idea of AWS was to take all of the back-end infrastructure and server work needed to create a website or internet service — things like image and video storage — and make them easy and affordable for anyone looking to build on the internet.

AWS is a business that benefits from from scale. The more servers under Amazon's control, the cheaper its own computing and storage, and the cheaper the computing and storage it sells to customers.

Over time, the business has expanded to encompass more and more services. Its dominance of cloud computing isn't about being first or being cheapest anymore — it's about having access to more than 140 different AWS products, from analytics and augmented/virtual reality to security, machine learning, and robotics. AWS customers can access all of these, and integrating them is also significantly easier since they already run the rest of their stack on Amazon.

While Google and Microsoft can compete with Amazon on price today, they can't provide that same volume of easily-integrated, reliable, comprehensive services.



Google and Azure have many of the same services to offer, but if a company has its data on AWS already, it is more likely to use Amazon's tools.

There's a switching cost moat at play here for Amazon as well. Switching from a cloud provider like AWS to one like Google Cloud can be a very difficult transition depending on how many provider-specific services you're dependent on — AWS banks on that.

Ultimately, being both low-cost and high-capability gives Amazon a highly advantageous position. Most importantly, this is an industry that's still at the beginning of its growth curve.

In 2019, Amazon actually strengthened its cloud advantage, growing its market share to 47% compared to 22% for Azure, 8% for Alibaba, and 7% for Google Cloud.

Cultural Moats

Not all companies build moats from structural factors like cost or network effects. While these are powerful ways to keep customers around and fend off competitors, huge companies have been built off intangible factors like brand and tradition as well.

BRAND-BASED

Brand-based business moats protect a company from competition through some kind of unique value proposition, culture, and messaging.

With a strong, recognizable, and valued brand, companies can get their customers to pay a premium for their products and come back for repeat purchases – a powerful moat generator especially for companies selling a commodity.

When a company has a sufficiently powerful brand, it has pricing power because its customers buy based on something beyond price – they buy based on the signaling function of the purchase, and/or because of cultural forces beyond that individual's control.

TRADITION-BASED

Tradition-based business moats protect a company through the values and beliefs of the culture around that company.

Some products become deeply embedded in a culture but don't have a primary supplier, meaning they're impossible to build a moat around.

Some products, however, continue under patent or tradition to only be produced by a single company, like the situation with Marmite in the United Kingdom. With these kinds of products, companies can sustain a moat solely driven by the culture around them and its need to use or consume their product.

12. Brand

How Patagonia grew by understanding its customer identity

The outdoor clothing retailer Patagonia is well known for its commitment to environmental and sustainable causes.

Environmentalism is core to Patagonia's mission – 1% of all of Patagonia's gross sales are donated to different environmental groups, and the company encourages other businesses to do the same.

In April 2019, the company went so far as to halt its custom manufacturing and sales of vests to companies in [finance](#) – an industry which had taken up Patagonia as a kind of uniform, despite the company's apparent wishes.

The love of the outdoors is core to Patagonia's marketing. Patagonia's strong public commitment to this mission has allowed it to acquire a customer base that shops with Patagonia in part because they share the brand's values.

Patagonia's brand works as a moat because it is so specifically tailored for its core audience of buyers. If you care deeply about the outdoors, you're likely to spend more time outdoors, which in turn means you're likely to buy the high quality outdoors products Patagonia sells.

Brands like Patagonia grow more powerful moats over time, because consumers judge the virtue and ethics of a brand partly by how long it has been consistent. Patagonia has supported environmental groups for more than forty years, and has been at the cutting edge of sustainable causes.

"We went organic in 1996. ... We learned how to make fleece jackets from recycled plastic bottles and then how to make fleece jackets from fleece jackets. We examined our use of paper in catalogs, the sources of our electricity, the amount of oil we consumed driving to work... [I] t's part of the cost of doing business, part of our effort to balance (however imperfectly) the impact we have on natural systems."

— PATAGONIA

This doubling down on the commitment to sustainability is part of what turned the company around from its darkest hour in the early 1990s.

At the time, Patagonia had to lay off a fifth of its workforce, and founder Yvon Chouinard considered selling the business.

Instead of selling, Chouinard spent the next several years looking for ways to bring the company closer in line with its sustainable ethos.

For Black Friday 2011, Patagonia completed a "Don't Buy This Jacket" campaign: as a result, that Black Friday Patagonia's sales rose 42%.

PATAGONIA: “The Greenest Product Is The One That Already Exists”

DON'T BUY THIS JACKET



COMMON THREADS INITIATIVE

REDUCE

WE make useful gear that lasts a long time
YOU don't buy what you don't need

REPAIR

WE help you repair your Patagonia gear
YOU pledge to fix what's broken

REUSE

WE help find a home for Patagonia gear
you no longer need
YOU sell or pass it on*

RECYCLE

WE will take back your Patagonia gear
that is worn out
YOU pledge to keep your stuff out of
the landfill and incinerator



REIMAGINE

TOGETHER we reimagine a world where we take
only what nature can replace

By 2014, Patagonia was up to \$500M a year in revenue. As of 2018, that figure was above \$1B.

While some have criticized Patagonia for being too forthright about its political stances, the growth of Patagonia's outspoken brand and its embrace of more sustainable development processes have both coincided with the company's massive success — and the creation of a significant moat around the company's cultural mission.

As Patagonia grows, it could be challenging for the company to maintain the same clarity and purity of mission — especially as both bigger brands and new, smaller D2C brands tout sustainable practices.

13. Brand

Why consistency has been key to Coca-Cola's success

If one ingredient of a powerful brand is time, another equally important ingredient is consistency.

Consistency creates a unified experience that is powerful for building a brand — one great example is Coca-Cola.

In 2019, Forbes calculated Coca-Cola's brand value at about \$59.2B, the only non-tech company in its top seven brands overall.

While Coca-Cola's use of sponsorship and advertising is important to its success, its consistency in product is just as important.

Coca-Cola turned its soda into one of the biggest brands in the world largely by manufacturing and shipping the same product to customers all around the world, years before logistics and infrastructure would make this an easy task.

The Coca-Cola brand differentiation began with its bottle, which was designed with a highly unusual contour for the time in order to shape the perception that it was a premium product.

The Coca-Cola brand extended to the way that the drink was stored, how it traveled, and how it looked on store shelves. Coca-Cola insisted that bottles of Coke needed to be served at no more than 40 degrees, and sent its own salespeople out to new stores carrying Coca-Cola to ensure compliance.

The bottling and distribution strategy that Coca-Cola pursued in these early years was defined by the desire to give every consumer the same, optimal experience every time they tried it.

Advertising let Coca-Cola promote the idea of that consistent experience around the world – but it was ultimately its commitment to standards, distribution, and logistics that allowed them to deliver on it.

Since the 1960s, Coca-Cola's ability to deliver a consistent and beloved brand experience has also led them to experiment with new, potentially moat-reinforcing products.

Some of these have been duds, including a Mountain Dew competitor launched in 1969 called Simba and the company's 1985 reformulation of the original Coke recipe, codenamed "New Coke."

After the introduction of "New Coke" in 1985, Pepsi actually briefly overtook Coke as the most popular beverage on the American market – though Coke quickly retook the top spot after it reintroduced "Coca-Cola Classic."

Other side products developed by Coca-Cola have been highly successful and have helped vastly diversify the Coca-Cola brand's offerings into juice, water, and other types of carbonated sodas, including Sprite, Fanta, Tab, Powerade, Nestea, and Dasani.

Coca-Cola's moat has been challenged by competitors over the years, most notably by PepsiCo, though these two companies have tended to target slightly different niches.

Today, less than 50% of PepsiCo's revenues come from beverages, with most of the company's business coming from the company's food and snack partnerships.

14. Brand

How Starbucks changed Americans' relationship with its coffee

Before Starbucks, the American coffee industry was dominated by 19th century brands like Folgers and Maxwell House: cheap beans, stale coffee, and packaging meant to extend shelf life indefinitely.

Starbucks didn't just introduce higher-quality European roasting and brewing practices to the American public — it became synonymous with premiere, sustainable coffee, and produced a durable competitive advantage in the process.

From the company's earliest days, Starbucks worked to make its brand synonymous with luxury and sophistication.

It outfitted its cafes with vintage furniture and European decor, and gave its drinks & cup sizes exotic-sounding names.



As Douglas Holt and Douglas Cameron write in *Cultural Strategy*, "Starbucks worked because it got the cultural expression right — sophistication conveyed by the right ideology, myth, and cultural codes to resonate with the new cultural-capital cohort in 1990's America."

When a prospect walked in the door and placed an order, she was engulfed in a very accessible artisanal-cosmopolitan experience that made her feel more sophisticated than if she had bought a coffee from a competitor."

Starbucks built itself a powerful moat by upgrading coffee from something Americans consumed to something they could enjoy consuming, and be seen by others consuming.

It did this both by focusing on quality more than previous American coffee companies — many of which had previously mixed their ground coffees with cheaper beans to save on costs — and by framing the experience of visiting a Starbucks cafe in a more sophisticated manner.

Today, Starbucks ranks as the second most valuable restaurant brand in the world, falling behind only McDonald's, according to Forbes. As premium coffee has become more popular and commoditized in the United States and across Europe, however, Starbucks has looked to the Starbucks Rewards membership program as a new moat.

Originally, becoming a Starbucks Rewards member was the only way to use Starbucks' popular mobile ordering, pick-up, and payment app — today, while mobile ordering is available to non-members, it still offers Reward users free brewed coffee and tea refills, exclusive offers, and rewards.

In 2018, in a sign that the company's strategy was succeeding, Starbucks announced that Starbucks Rewards purchases represented 36% of the company's total orders.

15. Tradition

How Marmite became condiment king in the UK

Marmite, a British-made food spread made from yeast, was first invented in 1902. The slogan for the Unilever product – “Love it or hate it” – says it all about the brand’s key competitive advantage over other food spreads in the market. While it has its detractors, Marmite is culturally embedded in the country.

Tradition-based moats are rare and difficult to build, but much of Marmite’s origins relate to war.

Marmite is a good source of vitamin B, thiamin, riboflavin, and folic acid, so it became a standard military ration designed to combat a common deficiency in British soldiers during both WW1 and WW2. It was also used as a healthy snack for babies. The widespread use of Marmite cemented its place in the British home.



The product had several inherent factors that helped it achieve ubiquity in its earliest days and become a mainstay of the culture. In addition to its health properties, Marmite doesn't need to be refrigerated, and has a long shelf life.

Today, the product is still an iconic British good. The product itself still bears traces of its origins, which reinforce its status as a traditional product and something inherent to the culture of its surroundings. For example, it is still sold in its iconic jar, which features a French "marmite," or casserole dish. But Marmite's also been integrated and updated, like Jamie Oliver's recipe for Marmite popcorn and a release of Marmite-flavored chocolate.

Resource Moats

Some companies don't build moats through their products or brands. Instead, they leverage internal expertise, patents, and/or legal protections.

Resources unique to a company in one way or another – whether in the form of intellectual property gained through R&D, internal knowledge, or a monopoly – have built some of the world's most and least durable moats.

INTELLECTUAL PROPERTY

IP moats work because a company develops some kind of valuable intellectual property that its competition, structurally, cannot replicate and use.

While patents won't always protect a company from a much bigger competitor, especially if it takes longer for them to commercialize their drug or technology, a patent in fields like pharmaceuticals can produce a powerfully durable competitive advantage.

KNOWLEDGE

Knowledge moats work by concentrating valuable expertise within a single organization.

Many forms of knowledge, however, can easily be transferred, lost through brain drain, or imitated – companies that want to build a moat based on their knowledge need a way to fend off competitors until they can reach a point of critical mass.

REGULATORY

Regulatory moats work by giving a company protection from competitors through legal channels, including regulations preventing new competitors or through a contract with a bigger, more durable company.

These kinds of moats can be durable as long as the political leadership of the country, or leadership of the company, choose to maintain that arrangement.

16. IP

How Pfizer turned Lipitor into the best-selling drug in the world

One of the few ways to build a business moat is through patent law.

When Pfizer spent \$90B to purchase competing drug manufacturer Warner-Lambert, building a patent-protected moat was the main objective of the acquisition.

The crown jewel of Warner-Lambert's development efforts, Lipitor, had just recently been discovered to reduce the amount of bad cholesterol in patients better than any existing statin drug.



While Pfizer first partnered with Warner-Lambert to help market and do late-stage testing on the drug, the company eventually made the decision to acquire Warner-Lambert (which had already received significant buyout interest from other drug companies).

Because Pfizer owned the company that had a patent on the drug, it was virtually invincible: Lipitor's breakaway success made it unlikely that investors would attempt to fund a better product (a risky proposition) while no other company would be able to sell Lipitor or a generic version.

Pfizer was also helped by a few factors outside of its direct control. For one, there was the FDA's decision in 1997 allowing drug companies to run ads for consumers. Ads promoting Lipitor helped make the drug a household name and drive sales even higher.

There was also a push to lower federal standards for healthy amounts of cholesterol in the body, a movement spearheaded by health groups that qualified more Americans for cholesterol medications.

Over the course of its 14.5 year patent, Lipitor would generate \$125B in sales, producing 20-25% of Pfizer's total revenues for several years and making Lipitor the best-selling prescription drug of all time.

The difficulty with patents, of course, is that they expire. Drug companies like Pfizer must defend their claim to exclusive development rights against other companies that want to manufacture a cheaper, generic version of the drug – in 2009, Pfizer successfully extended the issuance of its patent on Lipitor to the end of 2011.

When Pfizer's patent protection on Lipitor ended, it opened the floodgates for cheaper generics to flood the market. Pfizer, however, has fared better with Lipitor than most drug companies that lose its patent-protected cash cow.

It takes just six months for a drug to lose 80% of its sales after a generic replacement becomes available, according to IMS.

Even after its patent on Lipitor expired in the US, Pfizer's effective advertising, continued research into the success of the drug, and deals cut with insurers and PBMs have allowed it to be a profitable business for the company — though never quite as powerful as when it had exclusive rights to its sale. Still, Pfizer's patent on Lipitor is still active in some countries, where exclusive sales continue for the company.

Today, thanks to these countermeasures, and particularly the drug's success in China, Lipitor still generates about \$1.5B a year in sales for the company.

17. IP

The universe of characters that made Disney a \$230B company

Intellectual property isn't the most common differentiator for media companies, which usually rely on competitive advantages like their brand or their cultural prestige.

But few companies in any industry boast intellectual property moats as deep and as protective The Walt Disney Company.

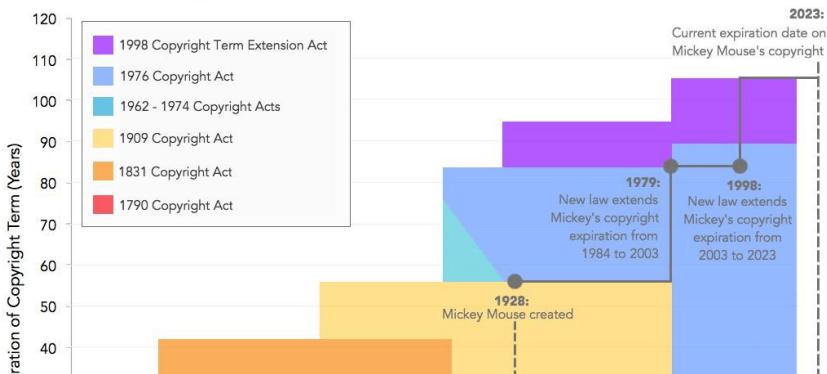
Disney today is the most dominant company in Hollywood, with a 35% market share on all movie tickets sold. In 2019, each of the top 5 grossing films so far has been built on Disney intellectual property: *Avengers: Endgame*, *The Lion King*, *Toy Story 4*, *Captain Marvel*, and *Spider-Man: Far From Home*.

This dominance didn't emerge overnight. Over the last several decades, Disney has spent billions acquiring other companies with valuable IP (Lucasfilm, Pixar, ESPN, Fox) as well as on lobbying efforts to protect its vast library of intellectual property from having its copyright expire.

As such, the law has been changed to allow for new media products to be automatically copyrighted upon their creation, a decision that has created built-in protection for new Disney properties.

Mickey Mouse's Effect on U.S. Copyright Law

Every time Disney's copyright on Mickey Mouse is about to expire, the law magically changes



Under the standards of the copyright laws that existed when Mickey Mouse was first invented, the cartoon mouse should have entered the public domain and become available for any creative work to use freely in 1984.

Disney's lobbying got Mickey Mouse's copyright deadline extended another nineteen years, protecting him until 2003. A few years before that deadline was set to hit, Disney lobbied successfully for another extension, protecting Mickey Mouse as Disney's intellectual property until 2023.

As a result, no studios or companies can make any kind of content containing any iteration of Mickey Mouse — or any of the other valuable characters that Disney owns — creating a moat, protected by law, around Disney's media universe.

Today, the amount of original content that Disney creates, compared to the amount of spin-offs and remakes and sequels based on existing IP, is marginal.

As film critic Mark Harris puts it:

"Studio heads always used to say of their tentpoles and franchises that their profits financed smaller-scale gambles, risks, originals. Disney is the first studio to drop that pretense. It is the sum of its brands, and its brands finance its brands."

18. Knowledge

How Canon turned its technical expertise into a compounding benefit

Today, Canon is best known for its imaging products, including digital cameras and camcorders. But Canon's technical expertise with small-scale electronics and optical imagery have also made them a powerful competitor in the business copying market.

Canon introduced the world's first personal, mini-copiers in 1982. Until this release, Canon had been a camera company struggling to break into the more lucrative world of business machines. Five years later, 74% of Canon's revenues would come from its business machines division.



The primary advantage that Canon cultivated over other business machine companies was internal engineering expertise — specifically, the ability to design a miniaturized copier drum. It used that expertise to develop the copy machines, but then leveraged that knowledge to gain a powerful competitive position in the rest of the business machines market in the 1980s.

The drum is the central component of the copier, responsible for magnetically attracting toner and then projecting an image onto the paper as it rotates. Before Canon's innovation, copier drums tended to be big, expensive, and difficult to repair.

The size – and lack of durability – of the traditional copier drum made a miniature version of the office copier virtually impossible to build cheaply.

However, Canon figured it out when team leader Hiroshi Tanaka took his product team out for beers and asked why a copier drum couldn't be made using the same process used to make a beer can – in other words, could it be cheap and disposable.

As Tanaka's team worked to devise a new low cost, disposable aluminum copier drum, they pioneered several new technologies related to miniaturization, manufacturing & assembly, and the reduction of component weight.

The highly advanced team of more than 3,000 engineers had largely been built out during the company's previous attempts to break into business machines.

The copiers that resulted from Canon's investment in R&D were quick and smaller than any copier before, and quickly became popular in both Europe and North America, dominating the consumer market and low end of the business market.

While all that work paid off in developing the mini-copier, these same technological breakthroughs also directly helped the company develop other technologies, including typewriters, microfilm readers, and the laser printers that would soon become its biggest and best cash cow.

Canon today is still a market leader in the business copier market, but there are significant headwinds for the company to deal with to stay relevant in the years ahead. Corporate spending on printing and hardware is down, with digitization of documents up and business behaviors changing. Canon, in turn, is reframing its core business model to exclude copiers – and the company says that it plans to focus in the future mainly on cameras, commercial printing, nanoimprint technology, and medical products.

19. Regulatory

How the Kingsbury Commitment gave AT&T a 71-year monopoly

For much of the 20th century, the telephone system in the US was operated by one company: AT&T.

In the early years of the AT&T monopoly, the only way to access a telephone was to pay AT&T a subscription fee. Once AT&T set up your equipment, you could start using your new rented phone, but only through the company's network.

AT&T built this monopoly mostly by acquiring many of the local, independent telephone networks that had emerged in the early years of the telephone.

Since AT&T controlled the strongest nationwide network, the company had powerful leverage. Many small networks were reliant on one another to link out to larger exchanges – by acquiring these “hub” exchanges, AT&T could systematically cut small independents out of the network.



A map of AT&T's network from 1891.

In 1913, under government scrutiny of this vertical integration strategy, AT&T cut a deal to prevent being broken up.

The result was the Kingsbury Commitment, an out-of-court settlement that required AT&T to allow small, independent phone networks to connect with its nationwide long-distance network.

Despite this settlement, however, AT&T still managed to consolidate control of the country's telephone industry and run it nearly unimpeded until the 1980s.

While the Kingsbury Commitment forced AT&T to let local providers link to its long-distance network, it did not force AT&T to connect its local service with other independent providers, nor did it force AT&T to integrate with other independent long-distance networks.

Crucially, it also did not require AT&T to connect with local providers granted AT&T and the independent exchange were less than fifty miles from one another.

When those small connecting stations tried to connect to the AT&T network – as the Kingsbury Commitment had insisted they could – they found that each step of the process brought additional, untenable costs and hassle.

The result of this difficulty was that over the years following the Kingsbury Commitment, the number of active, independent telephone connecting stations decreased, and the number of stations connected to the AT&T network increased only marginally.

AT&T was free from further antitrust scrutiny for several years, and just seven years later, regained the ability to acquire independent telephone networks.

In the end, instead of protecting local businesses and competition, the Kingsbury Commitment's sanctions only preserved the competitive advantage that AT&T had built — and gave the company the green light to build it out further.

Over the next several decades, AT&T would use this regulatory oversight and other legislation passed in its favor to consolidate its control of both long-distance traffic and the nation's local telephone systems.

AT&T's dominance would last until 1984, when the many companies in the Bell System were officially broken up and turned into "Regional Holding Companies," causing a 70% drop in the book value of AT&T.

AT&T's "Baby Bells" have been successful companies on their own. In 2005, AT&T itself was purchased for \$16B by SBC Communications (formerly Southwestern Bell), one of the several Regional Bell Operating Companies that had been created as a result of the break up.

While AT&T was prevented from acquiring T-Mobile in 2011, the new AT&T company purchased DirecTV for a total of \$67B a few years later, and in 2018, the company was given permission to buy Time Warner in a deal valued at about \$85B.

Today, as a result of those acquisitions, AT&T is tied for the world's largest telecom company, and is the twelfth largest company in the world overall.

The new moats

Virtually every company is built on some kind of advantage: an entrepreneur uncovers some kind of inefficiency in the marketplace and then exploits it. But lasting companies are built on moats — on structural advantages that make it difficult for other companies to come in and repeat that same original discovery.

In this way, the moats of today mirror many of the foundational corporate moats from the past. Facebook, Amazon, and Google look different, but they have harnessed many of the same types of structural advantages as companies like Standard Oil, General Electric, and IBM.

But while they may harness similar advantages to size and scale, they do it in a new way: using data, network effects, online marketplaces, search, and social networks.

However, how durable these new moats will prove to be over the next century is an open question.

This report was created with data from the CB Insights' emerging technology insights platform, which offers insights into emerging tech and new business strategies through tools like:

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