

FINANCIAL TECHNOLOGY

Financial technology (fintech) is a lot more popular than you might think. Fintech surrounds our daily lives in a lot of technology that we use. There are multiple platforms, apps, and big companies that are considered financial technology. To learn more about fintech, it has been broken up into categories to understand the basis of what exactly fintech is. In the following order, we will discuss the basis of fintech, fintech within business, revenues, sustainability, and the future of financial technology.

How Fintech Works:

Financial technology is a term that refers to software that is used to improve finance for businesses and consumers. This can be through cost-effective ways that are not only efficient, but also convenient for all involved parties. Fintech is nowadays looked at as being a threat to traditional financial services in the hopes of improving the market for all parties involved. The way that fintech works is through taking the transaction process and simplifying it to eliminate steps that may be unnecessary (“What Is Financial Technology”, 2022). An example of this is allowing individuals to pay one another through their mobile phones instantly, instead of having to wait up to a few days for a check to clear or being able to hand over cash.

Data Fintech Deals With:

Fintech deals with all sorts of data with one of these being financial market data. Through fintech users are able to buy and sell shares of companies on the stock market. In the past, individuals would have to contact a broker to take care of the transactions for them, but now they are able to do so on their computers or mobile phones. Another type of data that is used by regulation data (Kagan, 2023). This data is collected to help fintech companies make sure that they are operating in a lawful way. They can plug this data into their algorithms to make sure that their automated trading complies with SEC regulations, if they are opening in the United States.

Hardware and Software:

When it comes to the hardware and software behind fintech, there are a few that play a crucial part. The first being blockchain technology. Blockchain allows for global payments without having to worry about exchange rates between different currencies. Additionally, it offers opportunities like decentralized loans through cryptocurrency lending platforms in areas of the world where banks may not offer to borrowers. Another software is the use of Artificial Intelligence and Machine Learning. These two combined allow for banks and financial institutions to offer robo-advisors that are automated financial advisors, extract data, make trades based off of algorithms, and put together offers for customers that are tailored to their needs. As for the hardware, fintech utilizes mobile technology, like smartphones, to provide their services at customers' fingertips (Davies, 2022). Companies ranging from Venmo to Coinbase offer a way to utilize their services through their mobile app.

Major Companies:

Five companies that operate in the fintech industry and provide different types of services include GoFundMe, Venmo, Square, Visa, and Robinhood. First, GoFundMe is a platform that allows fundraising campaigns to be started with simplicity, which can be for things ranging from medical bills to saving up for a college degree. Next, Venmo allows for individuals to interact with each other and exchange funds in seconds with no fees. This is much quicker than the days

it can take for a check to clear with a bank. Square offers solutions for businesses to accept payments. They offer an online platform that helps ecommerce businesses, while also providing in-person services, such as card readers that can be plugged into a smartphone to accept payments. Another FinTech company is Visa, who offers credit cards that are now able to be used with tap technology instead of having to swipe the card. They also allow for their cards to be accessible through mobile apps so that they may be easily paid off through bank transfers. Lastly, Robinhood is a trading platform that allows retail investors to buy and sell stocks through their website or their smartphone app with no trading fees.

Value in FinTech:

FinTech companies operate in many different industries. Retail banking, investment management, fundraising and non-profit endeavors, flexible payment options, education, cryptocurrency, and peer-to-peer money transfers just to name a few. FinTech can help automate certain processes to offer a cheaper and smoother service to its customers. Non-profit's can utilize FinTech companies, such as GoFundMe, to help raise awareness and generate revenue with ease. GoFundMe can help non-profits generate revenue on a much cheaper and timely basis than traditional methods. Other Methods such as mailing in cash or writing a check take up much more time and cost more compared to GoFundMe's instant donation for a small percentage fee. Other FinTech companies, such as Kaggle, offer an open source environment to enhance learning without any cost to the user. Kaggle allows companies to use its platform to solve problems involving Jupyter Notebooks for free. Instead of spending capital on training or hiring experts, companies can refer to Kaggle. Technology is at the core of Financial Technology, and plays a crucial role in how financial services are delivered. FinTech offers all of its services via applications and websites so technology is vital to FinTech's success. The Nature of technology in FinTech is constantly evolving, and it is driven by the need to meet customer demands and generate efficiency.

FinTech can bring value to companies in many different ways. At its core, FinTech is utilized to help companies, business owners, and consumers better manage their financial operations, processes, and lives. Fintech can allow companies to create value by automating certain tasks to produce the same solution for a lower price compared to traditional services. By offering services and tasks at a lower price it will draw customers to conduct business with them rather than a rival firm. For example, traditional peer to peer money transfers are a long and complex process involving multiple parties, banks, and networks, but with the creation of services like venmo and paypal, those peers can receive their payments within seconds. The value in this example is brought by the convenience, speed, and security offered by FinTech. Another example of FinTech creating value for companies is Gusto. Gusto is an online payroll system that allows companies to conduct its payroll in an easy to use manner. Gusto also offers employee benefits such as health insurance and 401(k) accounts. This service helps take some of the burden off the company which creates value. In addition to payroll and employee benefits, Gusto also offers an included service to automatically file payroll taxes with the correct government agencies. The value created with this service stems from the ability to do payroll taxes without the need for a CPA. Consumers also benefit from companies using FinTech. As previously mentioned, companies are using FinTech to lower the cost of specific services which allows for consumers to utilize those services at a lower cost to themselves. This will increase

consumer satisfaction which will lead to a higher percentage of returning customers. Overall, the value that companies can derive from the use of FinTech results from the ability to operate tasks at a lower cost and on a more timely basis compared to traditional methods.

Revenues:

Generating profits can be challenging, however businesses that operate under financial technology have found and utilize many different ways to generate revenues. Some of the main financial technology companies consist of American Express, Venmo, GoFundMe, PayPal, Mastercard, Chetu, and many more companies. As given in the name, these companies are surrounded by technology and can include simple transactions such as: swiping a credit card, depositing cash, wire transfers, stock management, bank statements, and really anything that encompasses finances. However, how these companies make profits differs from most other companies. Unlike purchasing tangible products, food, and other resources, their sales and profits are based on fees.

In an online article, “How does fintech make money? 9 business models explained”, written by Tom Sullivan explains how fintech companies actually are profitable. He continues by developing several methods that fintech companies most commonly use. The top 9 business models that companies employ, include but are not limited to: interchange fees, subscription fees, payment processing and transfer fees, trading fees, interest, etc. (Sullivan, 2022). Needless to say, these companies are profitable strictly based on charging fees. For example, interchange fees are one of the most popular methods. Sullivan states, “ more than 75% of fintech companies derive most of their revenue from interchange fees” (Sullivan, par. 9, 2022). Interchange fees, charge merchants a percentage of the transaction. The percentage can differ depending on the company, however generally it is around 3.0%. (Sullivan, 2022). Continuing in Sullivan’s article, he also mentions the basis of payment and processing fees. Similarly to interchange fees, payment and processing fees also take a percentage of the sale and charge the merchant for the process of using their device. This is seen heavily in the fintech company, Square. (Sullivan, 2022).

One of the major differences, on how a fintech company produces revenues, also depends on what their main services provided are. While some companies may focus more on transactions, other companies may focus on investments and loans. While a lot of these companies employ more than one factor to produce revenues, the main income source could differ significantly. This is seen in: *All Introduction to Fintech: Key Sectors and Trends*, written by S&P Global Market Intelligence. In this article, it explains that there are four major components when it comes to fintech. These four components are: “digital lending, payments, blockchain and digital wealth management” (S&P Global Market Intelligence, 2016). When taking these four components into consideration, it is clear that the profitability/ production of revenue can vary significantly within each sector of fintech institutions.

Overall, financial technology companies employ many different business models to produce revenues. What business model one company might employ, could vary significantly within the next company. While a lot of businesses employ a mix of these revenue producing fees, it has proved very successful in this industry. In fact, it currently leads with around 168.5 billion in revenue produced for 2022, with an expected increase over the forecasted years. (“Fintech financial technology sector revenue worldwide in 2017 and 2018, with a forecast until 2024”, n.d.).

Fintech Sustainability:

The sustainability of fintech technology is a complex issue that depends on various factors, such as the regulatory environment, technological developments, and customer preferences. Fintech leverages Information Technology and there is a lot of potential for innovation. This potential suggests that fintech could continue to play an important role in the financial industry for the foreseeable future.

While there is no way to predict the future with certainty, there are several factors that suggest fintech is highly likely to be sustainable. Below are some of the factors that help us evaluate the sustainability of fintech, according to various online articles.

1. Increasing demand:

According to Milan Ganatra, CEO at 1Silver Bullet, the demand for fintech solutions is likely to grow. He states in his online article that consumer behaviors are significantly changing since the pandemic and they are looking for more convenient and efficient ways to manage their finances. He also states that the Fintech companies are well-positioned to meet this demand with their Digital wealth management solutions, Innovative loan solutions, etc. Hence, the demand for fintech is growing.

(<https://www.linkedin.com/pulse/how-fintech-embracing-changing-demands-consumers-milan-ganatra/>)

2. Regulatory support:

Many governments and regulators are increasingly recognizing the importance of fintech and are providing support and guidance to ensure its sustainability, according to a World Bank document. For example, many countries have set up regulatory sandboxes to allow fintech companies to test their products and services in a controlled environment. This shows the potential of fintech. (World Bank Group, 2018)

3. Investment and funding:

G Cornelli examines the trend in investment and states that “Fintech has attracted significant investment and funding in recent years and is continuing”, indicating that investors and the market see the potential for long-term growth and sustainability. (The Bank for International Settlements, 2021)

4. Innovation and adaptation:

Fintech companies are known for their innovative approach to solving problems and adapting to changing market conditions. This flexibility and willingness to adapt are likely to help fintech companies remain relevant and sustainable over time. (Springer open, January 2023)

Disruption in the Financial Industry by Fintech:

Fintech technology has great potential for transforming the financial industry by introducing innovative solutions that make financial services more accessible, efficient, and affordable by leveraging Information Technology.

Fintech has already disrupted the financial industry and is expected to continue to do so. Here are some of the ways fintech is revolutionizing the industry.

1.Digital payments:

Fintech has revolutionized payment methods. The advent of mobile payments and digital wallets has enabled consumers to bypass traditional payment methods such as cash and checks and use their smartphones to pay for goods and services. As a result, payments are faster, more convenient, and safer. (Innovate daily startup,2023)

2.Digital banking and Insurance:

Fintech has revolutionized traditional banking by providing more convenient and accessible digital banking and Insurance services. Consumers can now open and manage bank accounts online, apply for loans and credit cards digitally, and get financial advice from robot-advisors.(Innovate daily startup, 2023)

3.P2P lending and crowdfunding:

Fintech has made it easier for individuals and small businesses to access finance through peer-to-peer lending platforms and crowdfunding. These platforms connect borrowers and investors directly, eliminating the need for traditional financial intermediaries. (Innovate daily startup, 2023)

4.Blockchain and cryptocurrencies:

Fintech also introduces new technologies such as blockchain and cryptocurrencies that can disrupt the traditional financial system. Blockchain technology enables secure decentralized transactions, and cryptocurrencies offer an alternative to traditional currencies that are not tied to governments or financial institutions. Overall, the disruption caused by fintech is likely to continue as technology evolves and new innovations are introduced. Traditional financial institutions must adapt and innovate to remain relevant and competitive in the face of this disruption. (Innovate daily startup, 2023)

Fintech has its challenges, like online frauds etc., but with the use of ML and AI, the fraud risk can be mitigated, according to an online article from Plaid, which further contributes to the sustainability and disruption in the financial sector by fintech.

The Future of Fintech:

As mentioned above, fintech services and solutions have penetrated financial operations across the globe and are set to advance and spread out even further. One of the key growth opportunities lies in fintech's transformative growth in developed markets, such as the United States. However, an even more significant part of it is formative growth in developing economies, such as China or India, where digital adoption is expected to accelerate in the upcoming years (The World Bank, 2021).

Fintech serves as a component as well as a catalyst of digital transformation. Fintech enablers power the rise of related technological innovations, like e-commerce, retail, and

consumer finance, and vice versa. These and other emerging technologies are expected to grow and develop alongside fintech (iShares, 2022).

Fintech targets various products, services, and solutions, from digital payments to personal finance and fintech for businesses. So financial technology is expected to progress and grow accordingly. As stated in Statista's forecast (2022), digital transactions are foreseen to grow significantly across all fintech verticals, reaching at least 100% between 2022-2027. Here are the key growth sectors within fintech. First is digital wallets and payments. As transactions are moving online and businesses are implementing convenient payment options (such as buy now, pay later), the digital payments segment is expected to capture more market share in the foreseeable future (Statista, 2022). Embedded finance will be integrated into just about any shopping experience (Plaid, 2022).

Another area of major fintech expansion is digital banking (iShares, 2022). In addition to existing banks expanding their digital banking offerings, experts forecast the rise of digital-only banks. There is a tremendous opportunity for the latter organizations to grow as they can give access to banking to typically unserved communities. In addition, as people are increasingly relying on fintech for budgeting, paying bills, investing, etc., the use of personal finance management solutions are expected to accelerate (Plaid, 2021). Fintech business solutions, such as payroll management and accounting software, are to be more widely adopted by different organizations.

Overall, financial solutions are set to become more personalized, increasing customer engagement and satisfaction, improving onboarding processes, and providing other benefits (Plaid, 2022).

Fintech is already an essential part of people's lives and organizational operations. While no one knows exactly what the future of this technology holds, one thing is for certain – fintech will become more prevalent, accessible, and inclusive around the world. With fintech transforming the financial sector, important policy implications arise. Core policy issues that will need to be addressed in the future are financial integrity and stability, efficiency and fair competition; inclusion, cybersecurity, data privacy, etc. (The World Bank, n.d.)

Work Cited

“About PayPal.” *About PayPal / PayPal YT*, <https://www.paypal.com/yt/webapps/mpp/about>.

“About Gofundme.” *GoFundMe*, 26 Jan. 2023, <https://www.gofundme.com/c/about-us>.

An Introduction to Fintech Key Sectors and Trends.

<https://www.spglobal.com/marketintelligence/en/documents/an-introduction-to-fintech-key-sectors-and-trends.pdf>.

“A look at the future of fintech.” *iShares*, 2022, <https://www.ishares.com/us/insights/fintech>

Cornelli, Giulio, et al. “Funding for FINTECHS: Patterns and Drivers - Bank for International ...Giulio Cornelli.” *Funding for FINTECHS: Patterns and Drivers*, Bank for International Settlements, 20 Sept. 2021, https://www.bis.org/publ/qtrpdf/r_qt2109c.pdf.

Davies, Aran. “What Technologies Contribute to Fintech?” *DevTeam.Space*, 13 Apr. 2022, <https://www.devteam.space/blog/what-are-fintech-technologies/#:~:text=Fintech%20companies%20use%20AI%20and,to%20provide%20better%20customer%20service>.

“Digital Markets: Fintech – Transaction Value.” *Statista*, 2022.

“Fintech and the Future of Finance.” *The World Bank*, n.d., <https://www.worldbank.org/en/publication/fintech-and-the-future-of-finance>

Ganatra, Milan. “How Fintech Are Embracing Changing Demands of Consumers?” *LinkedIn*, 3 Feb. 2022, <https://www.linkedin.com/pulse/how-fintech-embracing-changing-demands-consumers-milan-ganatra/>.

Howarth, Josh. “57+ Incredible Fintech Stats (2023-2025).” *Exploding Topics*, Exploding Topics, 20 Jan. 2023, <https://explodingtopics.com/blog/fintech-stats>.

Kagan, Julia. “Financial Technology (Fintech): Its Uses and Impact on Our Lives.” *Investopedia*, Investopedia, 19 Jan. 2023, <https://www.investopedia.com/terms/f/fintech.asp>.

Kajnes. “The Future of Fintech: Top Startup Ideas.” *Startup Innovate Daily*, 9 Jan. 2023, <https://startups.bz/the-future-of-fintech-top-startup-ideas/>.

Published by Statista Research Department, and May 31. “Fintech Worldwide Revenue.” *Statista*, 31 May 2022, <https://www.statista.com/statistics/1214244/global-fintech-revenue/>.

“Sandbox or Quicksand?” *World Bank Blogs*, SHARMISTA APPAYA, 13 Dec. 2018, <https://blogs.worldbank.org/psd/sandbox-or-quicksand>.

Work Cited Cont.

- Sullivan, Tom. "How Does Fintech Make Money? 9 Business Models Explained." *Plaid*, Plaid, 3 Oct. 2022,
<https://plaid.com/resources/fintech/how-does-fintech-and-plaid-make-money/>.
- Trificana, Justin. "What Is the Future of Fintech? 6 Industry-Shaping Trends." *Plaid*, Plaid, 3 Oct. 2022,
<https://plaid.com/resources/fintech/future-of-fintech/#AI-and-ML-will-mitigate-fraud-risk>.
- "The Fintech Effect: Fintech's mass adoption moment". *Plaid*, 2022.
- "The Global Findex Database." *The World Bank*, 2021.
- "What Is Financial Technology (Fintech)? A Beginner's Guide for 2023." Columbia Engineering Boot Camps, 16 Dec. 2022,
[https://bootcamp.cvn.columbia.edu/blog/what-is-fintech/#:~:text=FinTech%20\(financial%20technology\)%20is%20a,for%20businesses%20and%20consumers%20alike](https://bootcamp.cvn.columbia.edu/blog/what-is-fintech/#:~:text=FinTech%20(financial%20technology)%20is%20a,for%20businesses%20and%20consumers%20alike).