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## TECH ②

### Fintech will dominate the way we transact in the future



The advent of spread sheets, Big Data analytics and high speed internet has helped create a number of FinTech players. These are new generation firms created by big technology companies as well as bright engineers with the backing of venture money. While traditional banks and stock exchanges dominate the initial adaptation of technology, the FinTech firms are riding the new tech wave adroitly. They seem to be winning over traditional players. Let's take a look at the ways in which they are acing their game.

#### Stock Exchanges

In 1608, Hans Libbershey patented one of the earliest technology adaptations in finance with the use of telescopes. Although he had invented the telescope to observe the night sky, the brokers of The Amsterdam Exchange used it to predict commodity prices. Couriers of the Exchange would watch the merchant ships intently to determine the quantity of the commodity being carried. If the ship sunk lower while travelling, it would be determined to have a higher supply of the commodity – thereby, lowering the prices. With those estimates in hand, couriers could then race to the exchange floor and update the traders with that “inside” information, enabling them to beat competitors by placing buy and sell orders ahead of time.

The period between the 18th and the 19th century also witnessed many changes. The New York Stock Exchange was founded in 1792. Known as “The Big Board,” it boasted of the biggest chalkboard that one could use for posting quotes. The first edition of the Wall Street Journal was published in 1889, which contained not only market news and index quotes, but select individual stock quotes as well. The telegraphic printing system which had been in use since 1854, suffered from various design flaws.

Soon after, Thomas Edison invented the Universal Stock Ticker in 1869, ticker tape machines became the stalwart technology on Wall Street for transmitting quote data over long distances. The early 1930's witnessed the advent of newer advanced models as well. However, there was still a huge efficiency and speed gap in the process. Another shortcoming of the stock exchange was that the cost of buying a stock was very high. A long distance call from LA to NY was about \$39 for a five-minute call!

In 1971, NASDAQ became the world's first electronic stock market. The NASDAQ helped provide investors with transparent pricing from dealers and avoided the monopolistic specialists, which narrowed the gap between the bid and the ask price on several stocks. Eventually, NASDAQ began reigning on the over-the-counter trades – trades done between two parties without the involvement of an exchange. Today, it has grown to become a world-class exchange with over 3,100 listed stocks that trade roughly 2 billion shares daily. Advances in technology have historically driven the process of buying and selling stocks. The Internet has been one of the most revolutionary and disruptive technologies in history. It has had a profound impact on investing especially for retail investors.

You can see the manifestation of technology today in everything from high-frequency trading to the current wave of robo-advisors, and it will continue as long as the markets exist. Technology also helped Inter Continental, which began with an internet platform-based exchange, to emerge victorious in acquiring NYSE Euronext and become a premier exchange in the US.

## Banking

Banking is another area in the finance sector that has highly benefitted from the advancement of IT. The FinTech startup companies are disrupting the financial services sector. The incumbents that have thousands of branches are struggling. Banks were once proud of their number of branches. Now an urbanite does not visit a bank branch more than once a year. Even though they have fewer branches, the Indian private banks have a near monopoly over young employees because of better tech systems. They have been able to report much higher CASA (current accounts and savings accounts), than their PSU counterparts as well. Traditional banks must create new business ecosystems for their survival.

For decades, banks and insurers have employed the same relatively stagnant yet significantly profitable business models. But today they find themselves confronted from all sides by innovators seeking to disrupt their businesses. New generation innovators explore the problem-solving opportunities by leveraging technological ideas like crowd funding, peer-to-peer lending, mobile payments, bitcoin blockchain, high-frequency trading, robo-advisers and Big Data analytics.

These modern-day FinTech firms could be the “enablers” who help to improve the efficiency of existing companies and their business models or could be the “disruptors,” who could threaten the existence of present business models. A number of startups across the globe are competing with existing players in SME lending to card payments, from wealth management to international payments. These new age FinTech companies now offer almost every service provided by the traditional banks, either with lower prices or with higher efficiency. This is forcing the entire financial eco-system to improve the quality along with better, faster and fairer services. Tech innovation is easier for technology firms rather than traditional old-fashioned banks. The banks have not been able to innovate to create services like Apple Pay or Android Pay and have been losing out on the e-commerce line of business. According to a TransferWise survey, the five main factors that prompt consumers to choose technology providers over banks are: a more secure service than banks (34%), a lower cost than banks (29%), a more convenient service than banks (26%), a quicker service than banks (18%), and better customer service than banks (18%).

### Tech benefits. Really?

In spite of rapid changes in technology, the financial sector has not necessarily become efficient. According to Thomas Philippon, a finance professor at NYU Stern, the financial services industry in the US is no more productive today than it was 130 years ago. Philippon explained that he had expected to see productivity benefit from the great strides made both in technology and in the application of more sophisticated techniques to financial service practices. Instead, he found that the wages and profit given over to the financial services industry (the “unit cost of intermediation”) stayed largely stable at around 2%. These costs remained flat even as he tried to adjust for developments like mortgage legislations, which increased administrative overheads. The financial services industry, according to Philippon, fares poorly when compared to other industries. For example, in retail, the productivity of companies like Wal-Mart has been greatly enhanced.

“Consumers seem to be very smart at finding the lowest price for everything – except financial services. They pay too many fees – that is a fact,” the NYU stern professor noted.

### Age of FinTech

Thus, FinTech innovators will see a promising future and could reduce the cost of intermediation with the use of technology. Companies could provide solutions for helping small businesses collect their payments faster. A new breed of insurance companies can identify ways to generate streams of data that help them make better pricing decisions and encourage their policy-holders to make smarter decisions. In the coming years, FinTech will continue to dominate traditional finance firms.