

# Artificial Intelligence In Finance

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**Abstract-** Artificial intelligence involves two basic ideas. First, it involves studying the thought processes of human beings. Second, it deals with representing those processes via machines (like computers, robots, etc.). AI has now taken over many sectors including financial sector.

## I. INTRODUCTION

Artificial Intelligence is now become apparent trend in the current market. It is now being applied in various sectors. Financial institutes apply artificial intelligence in various innovative ways. Further one of the study indicated that by 2035, the economy of 20 countries will be doubled and productivity will be at boom.

AI is lending the financial services industry by super storm. Mostly now a day's every financial sector is using AI to avail the benefits like saving time, reducing cost & adding values.

Recently, the 7 topmost & leading U.S commercial banks have arranged the strategic technological advancement by finding the AI applications to better serve the consumers, improving performance & increasing revenues.

For example, JPMorgan Chase's Contract.

## II. USES OF AI IN FINANCE

**1. Fraud Detection:** - With the rising the popularity in e-commerce the online fraud has so increased that it is now impossible to prevent. Currently in US alone the damage due to fraud transaction was 13 times the actual fraud value.

Artificial Intelligence comes in handy now. With the help of analyzing data points the machine algorithms can now detect the fraudulent transaction without any knowledge to the human analysts while upgrading the accuracy of real-time approvals & minimizing false decline.

Large number of companies is now exploring the AI-based fraud prevention. One of the examples is MasterCard's recently launched Decision Intelligence Technology.

**2. Increasing security:** Many of the organization are trying to implement the Artificial Intelligence in order to increase the security in online transactions & related services. It is possible if there is a computer gateway which can predict the illegal access accurately.

**3. Spending Pattern Prediction:** AI is useful for client spending detection by many of the organization & financial services. It will be helpful when the card is stolen or the account is hacked in order to prevent the fraud or theft.

**4. Stock Broker system:** A Computer system has been trained to predict when to buy or sell shares in order to maximize the profits & to minimize the losses during the uncertainties & meltdown.

**5. Client side user authentication:** This can again authenticate or identify the user & allow transaction to happen.

## III. HOW IT IS DANGEROUS TOO

AI in finance that is full automation of the system many a time is dangerous. AI in the field of finance innovates freely by continuously monitoring human psychology. But to truly predict the human psychology is many a time difficult and further the results may vary.

AI in finance is about continuous learning & re-learning of pattern, data & development in the financial world. It is a time consuming process and a time consuming process.

Handing down control entirely to an automated system is dangerous. One relevant example in this matter is the incident that happened on April 23rd, 2013, when the Associated Press' Twitter account was hacked and fake news about a bomb at the White House offset stock markets. A "flash crash" appeared due to algorithms trading according to information from the news, a method called sentiment analysis. Algorithm misbehaviors that propagate without human intervention could have disastrous results, just look at Microsoft's Tay chatbot. If a bank's virtual assistant would derail in the same way, it would probably lose its clients and even face some charges.

**IV. HOW IT HAS CHANGED THE FINANCE SECTOR  
MANLY THE BANKING SECTOR.**

We cannot over rule the fact that AI has totally changed the financial sector. Everybody is now switching towards the fully automation system for each and every work. AI has changed even the banking sector to a great extant.

AL has helped the banking sector by providing the services like smart wallet, personalized banking services, voice assisted banking, underwriting, Data-driven AI applications for lending decisions, customer support etc.

Refer chart - I where can see the various sectors in banking industry has switched to AI.

Further AI is predicted to have the gretest impact by 2020 both in banking and financial sector. Also definetly it will be having the positive impact over the competitiveness also. The same can be seen with the help of chart – II at the end.

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Chart - I

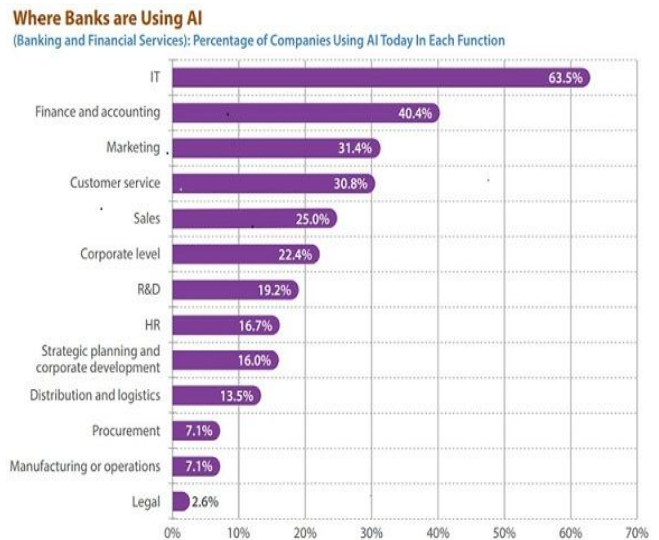


Chart – II

