AI in Financial Sector – A Driver to Financial Literacy

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Abstract
The financial set-up of a rustic plays a key role in economic development. Since independence Asian nation leaders area unit going to eradicate impoverishment and switch India into spirited, self –reliant global economy and embedded financial literacy needs in every citizen's life. India is historically a rustic of avid savers. A growing literature has examined the role of financial literacy in an individual's income, saving behavior and the use of various financial products. However, so far, no one has examined the relationship between financial literacy and the awareness and adoption of financial technology (fin-tech) products, i.e., financial products provided via internet-based and mobile-based platforms. This paper examines this relationship in developing countries like India. As a part of AI- Artificial Intelligence in financial sector, Fin-tech companies are playing a major role in rendering financial services far better and even brought it within palms of people. So in this paper author put efforts to present inter- relation between financial services and financial intelligence.
Keywords: Artificial Intelligence, Financial literacy, Financial services.

Introduction

Financial and Banking services in the country have gone through a paradigm shift driven by AI- Artificial Intelligence. Exponential growth of Fin-tech organizations has played a pivotal role in this transformation. Previously fin-tech observed in banking services and insurance services. This success is also the result of considerable support extended by various stakeholders including the government, financial institutions, industry regulators and venture capitalists. Recently Indian Fin-tech sector Q2 reports showed the pool of large amount of investments in with 32 deals which clearly depicts the growth of financial services system.

Even though, many initiatives like Pradhan Mantri Jan Dhan Yojana and Digital India, push up to improve financial intelligence, it remains a strong improvement area in India which depicts a quote in "The Financial Expert" by famous author R K Narayan – "Money is the greatest and the most ill-used factor in life. People don't know how to tend it, how to manure it, how to water it, how to make it grow, and when to pluck its flowers and when to pluck its fruits". Going by the empirical data, India is home to 17.5% of the world's population but nearly 76% of its adult population does not understand even the basic financial concepts. This means it is a huge opportunity lost for A) Bringing financial prosperity to a country's citizens B) Making country's citizen financially free. Accordingly, contributors from financial services system found utmost typical to step forward in financial intelligence.

This results in availability of a wide range of financial products in the market which traps consumers in an opaque state. Fin-tech companies, as a part of artificial intelligence in commerce field, play a pivotal role through its innovation and contribute to financial intelligence.

The Organization for Economic Co-operation and Development (OECD) rightly points out "Financial education equips people with knowledge and skills, and strengthens their attitude and belief in themselves, to make and exercise informed, confident and timely money management decisions." Contribution from fin-tech companies can only help in creating a strong financial foundation.

Objectives

1. To encapsulate the concept of Artificial Intelligence
2. To analyze the role of AI in financial sector.
3. To study the impact of financial services and financial literacy.
4. Better Financial services through Artificial Intelligence drives financial well-being.

Research Methodology

The proposed study mainly is conceptual in nature. The research done is based on secondary data. Here, the data from various research journals, websites and articles are collected in order to understand the role of AI-Artificial Intelligence in financial sector which results in improvement of financial literacy. This paper primarily focuses on the vitality of financial literacy in association of AI in financial sector.

As author's research is on study of financial literacy with reference to author's origin area, the author tried to study about financial literacy from different dimensions. The reference period for study is from 2017-18 to till date.

Review of Literature

The literature undergone by researcher related to the title is presented here as in the form of following:

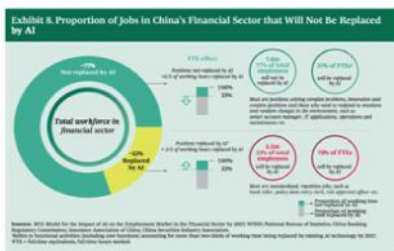| S.No	Author's name	Year	Objective	Findings
1	Ross Campbell	2016	Importance of fin-tech helps in teaching people about money and finance.	Fin-tech programs teach children vital skills that they can continue to hone as their access to money and the marketplace increase. They will grow into financially-sound teens and adults, adding to their financial knowledge as the years go by.
2	Anna Jacobson	2017	Highlighting the best fin-tech podcasts.	Payments move further away from banking. Meet the customer "where they are at". Payments embedded in chat, social media, mobile etc.
3	Corbin Hudson	2018	Applications of AI in the fin-tech industry.	Finance companies which adopt AI will enhance their activities in operations, marketing, sales, customer experience, revenues and overall development.
4	Heena K. Bijli	2012	An attempt has been made to understand financial literacy needs of SHG members involved, based on their financial practices.	Savings, Debt Management and Bank services which has been found that in there is a positive impact of economic development and financial literacy on financial inclusion.
5	Dr.K.Ramakrishna	2007	To analyze Andhra Banks' initiative towards financial literacy and financial inclusion.	Findings indicate that banks need to redesign their business strategies to incorporate specific plan to promote financial inclusion of bottom of pyramid group treating it both a business opportunity as well as corporate social responsibility.

Artificial Intelligence

According to the father of Artificial Intelligence, John McCarthy, it is "The science and engineering of making intelligent machines, especially intelligent computer programs". Artificial Intelligence is a process of designing a computer, a robot controlled by computer or a program development to make computers think intelligently like of humans.

AI is the process of programming intelligent software and systems in computers by studying how human thinks, how humans learn, humans mental ability in solving a problem. In simple words, we can say AI means creating IQ and EQ in computers that is Intelligent and Emotion Quotient.

Role of AI in Financial Sector

As the spectrum of AI applications in the financial sector increases and on the other hand, its potential risks are also increasing on. Widely, AI applications are observed across banks, insurance companies and capital markets in the form of automation, analysis and decision making and so creating new business models. As per Accenture report, AI applications will become the primary step of banks to interact with their users in the future.

As per research report by BCG consulting group, China occupied remarkable progress in the application of AI in the financial sector and by 2027, 23 percent of their job market in finance will have changed, with AI assure gains in enhancing efficacy and automation process.

It is perhaps the job market disruption, unpredictable and risky outcomes or the biased AI systems that led to WEF warning about AI destabilizing the financial system in the future. WEF is not alone in warning about the increased risk of AI seeping in financial systems - a Thomson Reuters report also indicated that firms that are reaping huge benefit in automating large swathe of back-office work, should do so judiciously.

Applications of AI being applied to in the Indian financial sector using software.

Personalized Banking and Automation

In current scenario, AI truly shines with its new innovations and ways to provide easier access and comforts to individual users. Especially in banking sector, AI boosts services to clients with chat-bots to self-help solutions which reduces workload to the call-centers. Now-a-days, voice-controlled virtual assistants are rendering smarter services at every step of clients in check balances, schedule payments, look up account activity and more.

A wide range of apps are in market which offers personalized financial advice. Intelligent system track personal income, recurring expenses, spending habits and offer suggestions with an optimized plan and financial tips. As a part of future plans of industry leaders, they are put forth for robotic process automation to cut operational cost and boost productivity with intelligent character recognition. Robotic process automation avoids the room for human error in high-frequency repetitive tasks.

Credit Scoring and Loan Management
Loan Frame

Loan Frame is an advanced fin-tech company in New Delhi with an aim to lend small business through forefront technologies and automation. All lending products of this company is originated, underwritten and distributed through AI in market place to connect small and medium enterprises with lenders. It provides secured and unsecured loans from 500 thousands to 500 millions.

Capital Float

Capital Float is from Bangalore provides working capital finance to SMEs in India. It is a complete an online platform which provides borrowers to apply online in minutes and receive funds in their bank accounts within 3 days with little hassle.

The company tracks loan repayments and identify potential defaults with their machine learning internal software. AI also refers to human loan officers when the risk prediction is not within predefined accuracy levels.

Fraud Detection
National Stock Exchange of India Ltd (NSE)

AI in financial sector also utilized in fraud detection. Recently NSE announced that they put efforts towards using machine learning to identify market patterns, monitoring on the exchange to prevent manipulation of its -frequency trading (HFT) markets.

According to NSE CEO Vikram Limaye, NSE is working to upgrade their surveillance system with AI and strengthen its security. They are planning to apply AI to their historical trading data on markets and clients to provide better services to financial advisors and to detect fraud.

Risk Management

The Bombay Stock Exchange (BSE) introduced a data analytics solution it claims can track social-media-shared news related to companies listed on the exchange.

Data analytics solution is introduced by the Bombay Stock Exchange (BSE) to track social-media-shared news of listed companies on the exchange. Potential risks of market manipulation and rumors are detected by usage of machine learning intelligence. In a recent press report, BSE stated that the software provides information of social media news and rumors to investors through its website. In turn, the software alerts human security official of BSE clear those rumors or information by spotting difference between the online news and the news in print media and justifies the reasons for the same.

Fin-Tech Shape Financial Literacy

In this rapid generation, all irrespective of age, continue to rely on their android phones, as fin-tech is becoming more powerful. Accordingly, it impacts on their money management and financial well being.

Now-a-days banks are in hands of public in the form of smart phone by which customers are using banking apps for fund transfers, payments, account details, lodging complaints, money management by SIPs, insurance, mutual funds and others. From this we can say fin-tech companies will shape financial literacy more in future.

Fin-tech investment applications are changing the way of saving and investing their money. The applications allows customers to link debit or credit card for their regular payments and with every transaction that occurs will automatically recorded in their accounts which gives a crystal picture of their expenditure and savings. Consequently, users can manage their savings by investing in other financial avenues provided in those applications.

Role of Fin-Tech Companies in Financial Literacy

Technological innovation became a Paradigmatic shift financial and banking service in our country. In this context, fin-tech organization has played a crucial role for disturb from past years, exponential growth of fin-tech in areas such as personalized Banking and Insurance services. Due to this success various stakeholders like government, financial institutions benefit and with

Financial Inclusion

India Stack is an ambitious project with an objective to bring India's population into the digital age by creating a unified software platform. With the support of this project, fin-tech companies, large financial institutions have begun to connect with untapped consumer segments. Exponential growth of internet usage even in rural areas added an advantage to pass on the knowledge of financial literacy to get financial benefits of the government schemes which require a bank account. These efforts can effectively lead the agenda of financial inclusion.

Financial Stability

With the development of technology in fin-tech companies, Indians are now got an opportunity of choice from wide range of financial products. In previous days, common man relies on the suggestions of peers, friends and relatives before investing in financial products which may mostly keep them away from a right product. This phenomenon was changed by fin-tech companies with their digital campaigns to create awareness in a simplified language. Hence, more awareness results in more comfort and ease in taking right decision by choosing right product which leads stable financial foundation.

Poverty Eradication

Revolutionary change in telecom industrial technology in mobile and internet has played a crucial role in reaching out to the consumers from bottom line of the society. India reached to 92 percent of internet density holds enormous aspirations to create a base-level of financial security. Credit facilitation is not only enough but also it should accompany with efficient credit management to avoid debt trap.

The Organization for Economic Co-operation and Development (OECD) rightly points out "Financial education equips people with knowledge and skills, and strengthens their attitude and belief in themselves, to make and exercise informed, confident and timely money management decisions." Contribution from fin-tech companies can only help in creating a strong financial foundation.

Limitations

The author put effort to draw the impact of AI on financial markets and services as one of the factor of financial literacy. So this study limited to theoretical work only. It is also limited to the data collected from secondary sources in order to understand the role of AI in financial literacy.

Conclusion

From the above analysis we can conclude that AI-Artificial Intelligence in financial sector aids in drastic impoverishment of financial literacy. In this modern era technology is wide spread globally, in that public those are having financial knowledge can adopt technology relating to their daily life and utilize it at optimum level. Technology is no more costly or complicated to learn now; everything is capsulated in a smart phone which an ordinary man can operate easily without sophisticated training and knowledge. But without financial knowledge having technology tools and skill are of worthless. As technology is double edged, a sensible entrepreneur can coherence the positive and negative changes of technology in daily business operations.

AI-Artificial Intelligence created a crystal picture of fin-tech companies in enhancing financial literacy and financial inclusion. On one hand the financial technology is growing on in the banking and financial services but on the other hand the challenges of AI and ML is also growing on at the same time. In this context World Economic Forum warning about AI impair the financial system in the future as it is disrupting job market and financial risk posed by AI.

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