EMERGENCE OF ARTIFICIAL INTELLIGENCE IN FINANCIAL SERVICES SECTOR– A NEW DEVELOPMENT

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ABSTRACT:

In a globalized world lot of services are offered to customers by various business houses. Any service which is of financial nature is called financial service. A financial service is a broad term used to signify various services offered by companies in finance industry. A financial services professional is one who provides services to his clients on various matters related to investment and financial planning. The role of a financial advisor is crucial in financial services area as the clients take support from them and base their decisions on various financial decisions. Different financial services include investment management, insurance, wealth planning, investment in stock market, tax consultation, banking services and so on. Artificial intelligence is the simulation of human intelligence practices by computer systems. On the other hand, Artificial intelligence is the use of technology in the area of finance. It is the process of modernizing the financial services sector thereby streamlining the traditional processes into innovative practices and providing the clients a faster service. This paper tries to focus on the emergence of artificial intelligence in financial services sector and its expectations to the stakeholders.

INTRODUCTION:

Any type of service which is of financial nature in services area is called as financial service. There are various types of financial services offered in our country. In a globalized world lot of services are offered to customers by various business houses. Any service which is of financial nature is called financial service. Financial services is a broad term used to signify various services offered by companies in finance industry. A financial services professional is one who provides services to his clients on various matters related to investment and financial planning. The role of a financial advisor is crucial in financial services area as the clients take support from them and base their decisions on various financial decisions. Different financial services include investment management, insurance, wealth planning, investment in stock market, tax consultation, banking services and so on. Artificial intelligence is the simulation of human intelligence practices by computer systems. On the other hand, Artificial intelligence is the use of technology in the area of finance. It is the process of modernizing the financial services sector thereby streamlining the traditional processes into innovative practices and providing the clients a faster service.

REVIEW OF LITERATURE:

The review of literature provides an idea on the research work carried out on the topic previously. It helps to form a basis for taking up further research in the selected area and draw some conclusions. The following articles were found useful for the present article:

Yi Han et al[1] in a research paper on impact of artificial intelligence on financial services concluded that AI is changing the structure of employment in the financial industry and how it can help affected workers adapt to this change. The application of AI in financial services is a complex and important topic that requires in-depth research and discussion at multiple levels such as technology, ethics and policy. We look forward to future research bringing more insights to help us better understand and address this challenge.

Seng Phil Hong[2] in his paper suggested a framework for the interaction of heterogeneous items with the physical world. High reliability, multicast, dynamic expansion utilizing a modular architecture, effective quality of service management, and built-in analytics platforms are some of this framework's distinguishing characteristics. The Internet of Things innovation is setting out various open doors for the eventual fate of banking and financial services.

Janin Karoli Hentzen et al [3] in their work noted that banks are increasingly relying on Artificial Intelligence to improve the customer experience and expand their use of Artificial Intelligence through conversational chatbots to assist customers with basic services or virtual assistants. Most banks consider AI technologies beneficial to the institution in various ways, including increasing revenues through improved customer service and reduced costs due to enhanced efficiencies, lower error rates and improved resource utilization.

Pinky Soni [4] in her article concluded that experts believed that AI soon becomes the part and parcel of human life. It completely changes the way we see our world. It solves many problems in minutes. There is a possibility that AI reduces human needs, so we need to balance by updating ourselves according to the changes. We must be kept in mind that we made machines, machines not made us. We get benefits by making its proper utilization

Bonnie G Buchanan[5] in his work on artificial intelligence stated that artificial intelligence in the financial services industry is still in early days. Artificial Intelligence will become more ubiquitous in finance, and with that comes more challenges including legal, ethical, economic and social hurdles. AI will also continue to bring new complexities to the global financial ecosystem. As more and more data become available and computing power increases, AI programs will become more complex.

Luisa Kruse et al[6] in their paper commented that modern technologies like artificial intelligence do not provoke change on their own and this study demonstrates that artificial intelligence adoption still opposes great demands to Financial Services firms. This study has shown that artificial intelligence is changing the physics of financial services, weakening the bonds that have historically held together financial institutions, while creating centres of gravity where new and old capabilities have to be combined in unexperienced ways.

OBJECTIVES:

The following are the objectives of the paper:
1. To study the emergence and growth of artificial intelligence in financial services
2. To know the benefits and challenges of artificial intelligence in financial services

METHODOLOGY:

This paper is purely based on secondary data. The secondary data related to emergence of artificial intelligence in financial services sector and also its benefits and challenges is drawn from various published sources. This article is descriptive in nature.

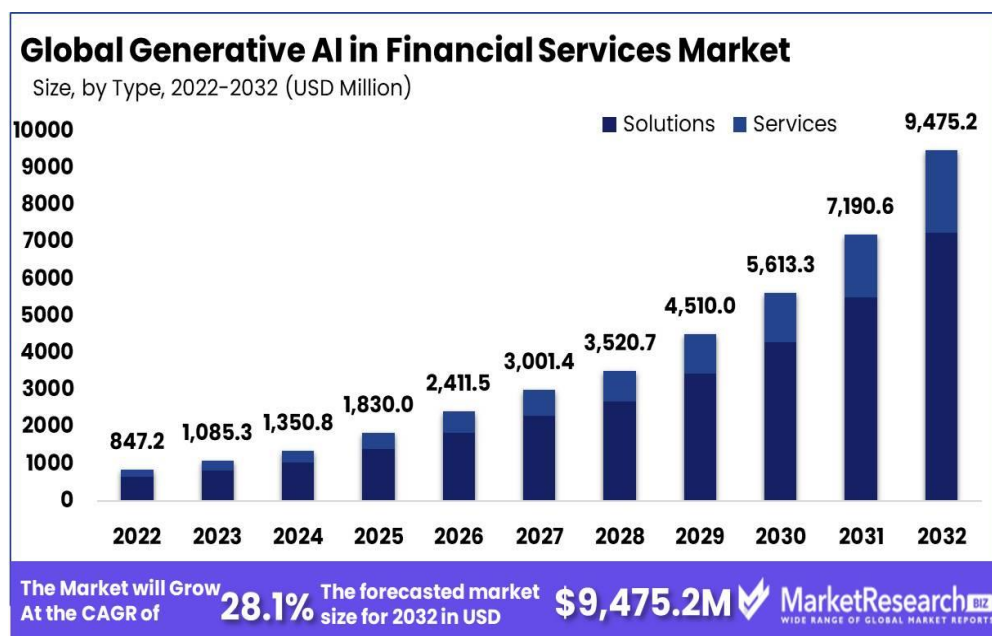## EMERGENCE OF ARTIFICIAL INTELLIGENCE IN FINANCIAL SERVICES SECTOR:

The emergence of artificial intelligence in financial services sector can be traced back to 1980s. In the year 1982 artificial intelligence slowly started in the financial services sector when James Simons founded a quantitative investment firm called as Renaissance Technologies. Artificial intelligence can mechanize many basic banking and related activities like payments, deposits, transfers, and customer service requests. It can also handle the processing of credit cards and various types of loans.

As it is known that any machine disposed job extends a lot of benefits and the same is applicable in financial services sector also. Artificial Intelligence in finance helps in many areas and in particular there are many areas like personalized services and products, creating opportunities, managing risk and fraud, enabling transparency and compliance, and automated operations and reduced costs.

The use of artificial intelligence in financial services sector can be found in areas like:
1. Stock Market prediction and analysis
2. Sales Forecasting
3. Personal Banking services
4. Credit card Management
5. Risk Management
6. Process Automation

GROWTH OF ARTIFICIAL INTELLIGENCE IN FINANCIAL SERVICES SECTOR:

Global Generative AI in Financial Services Market
Size, by Type, 2022-2032 (USD Million)

Solutions ■ Services

2022: 847.2
2023: 1,085.3
2024: 1,350.8
2025: 1,830.0
2026: 2,411.5
2027: 3,001.4
2028: 3,520.7
2029: 4,510.0
2030: 5,613.3
2031: 7,190.6
2032: 9,475.2

The Market will Grow At the CAGR of 28.1%
The forecasted market size for 2032 in USD $9,475.2M
MarketResearch.biz
WIDE RANGE OF GLOBAL MARKET REPORTS

(Source: GlobeNewswire)

As the artificial intelligence in finance sector brings many benefits and is expected to bring turbulence in the sector. It is clear from the chart that the artificial intelligence has been expected to grow at a faster rate in the next coming years too. As a lot of finance sector firms adopting the artificial intelligence day in and day out, the financial services market is expected to grow at a compound annual growth rate of 28.1 percent.

BENEFITS AND CHALLENGES OF ARTIFICIAL INTELLIGENCE IN FINANCIAL SERVICES SECTOR:

The adoption of new technology in any field has certain benefits. In the same lines, the introduction of artificial intelligence in financial services sector will bring many benefits and automate various processes and enable the customer service fast. The probable benefits that emanate from the artificial intelligence in financial services sector are cost reduction in procurement and HR activities, fraud detection mechanism in various automated processes, automation of services, trading decisions through prediction, marketing decisions for future, risk management, personal banking services, sales management, planning for material management and supply decisions.

On the other hand, the introduction of artificial intelligence in financial services sector may pose some challenges also. The challenges posed by artificial intelligence in financial services might include risks arising out of technology adoption, resistance to change in adopting new system, regulatory framework, industry related issues, data related issues, expensive process for migrating to new system.

CONCLUSION:

Artificial Intelligence in finance helps in many areas. It is prominent that any change in a particular area will bring certain advantages and may pose few limitations or challenges and the same is possible with the adoption of artificial intelligence in financial services area. The process automation advantage of artificial intelligence may boost the productivity of the business and may bring more business opportunities. At the same time artificial intelligence in areas like marketing and personalized banking offer very good services to the customers without any manual intervention and these type of services can be offered to the customers round the clock. A lot of manual processes which are continuous and repetitive in nature can be brought under artificial intelligence system. As the work is machine dependent it will bring cost reduction advantage in this competitive world. In some situations, the fraud detection mechanism in artificial intelligence may save many businesses from getting affected in future and thereby safeguarding the interest of numerous stakeholders. On the other hand, the probable challenges from artificial intelligence do exist and have to be addressed. To sum up, it is worth mentioning that artificial intelligence in financial services would bring round the clock service by prioritizing the customer needs.

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