

THE ROLE OF ARTIFICIAL INTELLIGENCE IN **FINANCE: A NEW TREND IN FINANCE**

Suraj Sharma¹, Dr. Prasad Begde²

Article History: Received: 20.10.2022	Revised: 03.11.2022	Accepted: 14.12.2022
		-

Abstract

The study intends to depict the role and conceptual epistemology of Artificial Intelligence with reference to new trends in finance. The study portrays that the role of ARTIFICIAL INTELLIGENCE in finance is to serve and spread knowledge among financial learners, youngsters, those who want to have a career in finance domain and students. The study has three basic objectives: First to get full acquaintance with AI in finance, second representing the classical and modern look of AI in Finance and third the review of literature and best practices conducted with AI in Finance. These objectives are only the basis of this conceptual review of ARTIFICIAL Intelligence as New Trend in Financial Domain. Simultaneously, this study highlights the classical and modern look of Artificial Intelligence in Finance. This study mainly focuses on financial activity done with the help of machines or Artificial Intelligence without financial fraud, error and mistake. The study has reviewed data from various sources such as books, journal articles or research papers, reports, internet / websites, and newspapers reading and personal observation. The analysis part is based on tables and past figures.

Keywords: Artificial Intelligence, Finance, Financial and AI Look, Financial Activity.

JEL Classification Number: F65

¹Research Scholar, VIT Business School, VIT Bhopal University, Kothrikalan, Sehore Madhya Pradesh - India 466114

Assistant Professor, Global Business School and Research Centre, Dr. D. Y. Patil Vidyapeeth (Deemed to be University), Pimpri, Pune, Maharashtra, India

Email: ¹surajsharmapgdm@gmail.com

²I/C Dean, Associate Professor, VIT Business School, VIT Bhopal University, Kothrikalan, Sehore Madhya Pradesh, India - 466114 Email: ²prasad.begde@vitbhopal.ac.in

DOI: 10.53555/ecb/2022.11.12.311

1. INTRODUCTION

Nowadays, the financial and the investment decisions play a vital role in individuals' life and the corporate world. The flawless decisions are essential in every financial situation. In the new age the role of Artificial Intelligence is rapidly expanding and committed to flawless decisions towards the financial sectors. AI is an area of computer science and science is inventing an intelligence that comes from machines to make flawless decisions. The machines are also creating which expert systems can intend to know/understand, think, learn and behave like as human being. The role of Artificial Intelligence is essential to convert hard work into smart work by the machine. In every aspect of life it is important to choose a better financial and investment decision for the present and the future. Hence, artificial intelligence are emerging as a new trend in the area of finance to inculcate new scientific techniques to make flawless financial decisions as well as investment decisions with financial modeling, e- financing, e - trading etc.

Artificial intelligence plays a very significant role in the field of computer science as well as other disciplines such as finance, economics, transportation, marketing, engineering and so on.

Objective of Study

- To describe the role of Artificial Intelligence in Finance: A Theoretical perspective.
- To represent a classical and modern look of Artificial Intelligence in the financial domain.
- To observe the best literature reviews previously conducted in the context of Artificial Intelligence in Finance.

Role of Artificial Intelligence in Finance

This era is inspiring to learn about financial services through technology while using a traditional approach. AI is playing multiple financial roles in the present market. Hence, every individual is essential to be familiar with financial knowledge in the context of technology reform. Nowadays: every learner, student and financial analyst needs to learn & create awareness about financial knowledge which is based on technology driven in the financial domain. Financial knowledge is essential for every nook and corner of individuals. It is helpful to expand financial literacy, which means to take knowledge in the area of Finance to every individual in order to fulfill various purposes of all financial deeds as well as efficient and effective use of financial resources. Financial literacy is the full epistemology of the financial system, financial services, financial and financial inclusion. Financial behavior Education builds the person's ability, knowledge and behavior through localized understanding of

financial literacy. Artificial Intelligence designed mainly two-fold ideas. First, knowing the thought process of human beings and second understanding the machine process of work via system (Patel, 2018).

The time to learn about financial technology interconnects with finance. Financial knowledge helps in arriving at the best decision. These best decisions start from the human mind or artificial machines. This explores some role of AI that should take decisions in the area of finance. So let's start the journey of AI in Finance. There are some following aspects to cover the knowledge of Artificial intelligence in finance:

- 24/7 access to learning
- Innovative and neural network services
- Taking flawless decision
- Fraud detections
- Increasing efficiency
- Contribution in financial task automation
- Learning smart content
- Better engagement and less pressure

Artificial intelligence is giving the platform for making optimal decisions with the help of machines. The machine makes us learn, think, and convert set objectives into reality. Nowadays, the most crucial problem in finance is making financial decisions. Every individual wants to fulfill financial needs and also thinks about how to utilize money from the market. After the pandemic, this is the right time to learn about how to make flawless investment decisions to select the right investment avenues without any fraud and error. During the pandemic the income level of general citizens has fallen. Even the common goal of a general citizen is not accomplishing sufficiently. Actually, this is the time to think about resolving financial issues. AI boosts the confidence to build up strong and favorable decisions for handling financial deeds while using traditional methods of finance. The machines can take flawless decisions with accuracy and according to the desire of the customer. It is giving possible solutions for the problem by machines. AI making decisions handled by financial institutions such as banking companies are resolving their financial crises with intelligent machines; they are also taking some credit related systems decisions. Banking are fulfilling customers' demands with full security, convenience and safety while simultaneously investing money by machines or artificial intelligence. The technology encompasses and transforms money in the right path. AI interlinks between financial services and makes customers smarter with use of machines. Artificial intelligence serves smarter services such as safety funds, and it becomes more convenient to use

financial services of banking companies. (Schroer, 2019).

Artificial intelligence plays a significant role in the financial market. It runs short term securities to give safe funds for investment. This is a platform for performing financial deeds technically and smartly. Artificial intelligence encompasses the detection of financial frauds. The financial institutions have adopted AI in finance for smarter working, increased work efficiency by technology and also accepting the structural framework of it. AI in the banking sector is using the facilities for smooth operational conduct with good results for better customer satisfaction and also 24/7 working hours. Banking institutions are offering financial services by giving customer access at any convenient point of time by using AI. AI is the platform for performing financial activities very easily and smoothly.

Artificial Intelligence uses some algorithms for implementation of financial services by financial institutions for customer access across the nation or world. Artificial intelligence is a safeguard to reduce financial crises. Finance has taken some significant decisions for creating wealth and maximization of profit. These decisions help to utilize financial resources in the right direction. In this study, the artificial intelligence also helps to make flawless decisions for betterment of money and safety such as a credit decision is one of the most important decisions of the consumer. Credit comes from loans or credit cards. 77% consumers have given priority to paying by credit or debit card and only 12% in favor of cash payment. Role of artificial intelligence in helping the credit decisions allows borrowers to make smarter underwriting and credit decisions for the proper utilization of credit funds like the decision of the millennials is the best instance of the sound credit decision process.

AI in finance is evaluated by the following components: Performance of machines as well as functions of machines, systematic management of financial transaction or data management, work performed for a long period of time, stability and the link between instruction and command. (Laurent Dupont, June 2020).

Machines make smarter decisions and help the banking industries to sort out problems. A lot of things covered there are taking decisions regarding trading of financial equipment, risk management, credit decision making, financial market analysis, financial management, management of financial services etc. AI becomes smarter in the area of finance. AI also helps to make the Indian financial system and their financial operational activity smarter such as smart financial institutions, smart financial markets, smart financial services and instruments. AI is helping to provide right direction with right decisions being implemented for execution of smart money makers as well as giving a chance for reduction of frauds and financial losses. Artificial Intelligence plays a significant role to make money smarter with full safety and security. Artificial Intelligence boosts analytical capacity, gives help to differentiate traditional financial approach and modern approach in order to inculcate knowledge by machines. AI plays a very significant part in finance, giving us life changing benefits (Kunwar, 2019). AI also applies machines in some highly essential tasks such as: assets management, risk management, underwriting, relationship manager argument task and insurance practices support (Chi Chan, 2019).

Functions of AI in Finance

Artificial Intelligence is performing various financial activities such as handling financial decisions, credit evaluation, financial planning and prediction with the help of financial modeling. AI plays a significant role in the finance area and also conducts financial activity like performing tasks automatically, detection of financial errors and mistakes etc. AI has performed five basic financial transforming activities in the finance industry such as: (i) Assessment of risk (ii) Management of fraud and detection (iii) Platform for business activity and help in trading (iv) Financial advisory services and (v) Managing financial activity performed in the financial market (5 Ways AI is Transforming the Finance Industry, 2021). Artificial Intelligence is to help trading, investment and managing the wealth of an organization with use of natural language processing. Natural Language Processing is the software used for credit score, data for underwriting and to make decisions about movement of stock for trading and investment (Azulay, 2019).

Artificial Intelligence helps to manage sales, price, cost, dates, route as well as prevention of transactions. Overall, we can say that the financial services and financial industries are ready to adopt AI in work (Bachinskiy, 2019). The application of AI in the financial industry is rapidly increasing and helping to perform the following financial services very smoothly: task automation, personal financial planning, managing credit and detection of errors as well fraud to be detected, managing bank financing, crypto currency, financial advising, smart contracts, mobile payment, crowdfunding, algorithmic trading services, and also creating financial ecosystem by machine performing the task etc. (Bonnie G. Buchanan, 2019).

This building block in figure is representing the past and future performance of financial services:

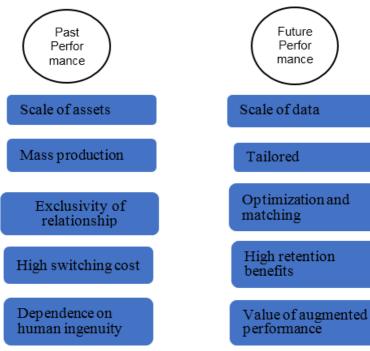
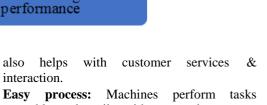


Figure: 1 Artificial Intelligence Building Block of Financial Services (The new physics of financial services; how artificial intelligence is transforming the financial ecosystem, 2018). In the present, application of financial technology involves knowledge of money, financial accounting, stock market and companies, derivatives, ledger, securitization, electronic transfer etc. (FinTech: Shaping the Financial World, 2020). Nowadays, every business needs to develop better customer services with the use of artificial intelligence. The use of AI in the financial system becomes more and more customers oriented (Xie, 2019).

Advantages of AI in Finance

After implementation of AI in finance the work is performed easier and it is making optimal decisions. There are some benefits of Artificial intelligence in finance as given below:

- **Task Automation:** It helps to perform tasks automatically and by command.
- **Detect Financial Mistake**: To help to detect financial mistakes and also detect financial frauds if they are incurred.
- Solving Problems: The machine provides solutions to financial problems and delivers recommendations to solve them by AI techniques.
- Money in Safe Mode: One of the most significant benefits of AI in finance is to facilitate funds or money in safer mode.
- Service Time: After implementing the machine, it provides services 24/7 hours and



- **Easy process:** Machines perform tasks smoothly and easily with no need to repeat work again and again.
- **Smart Process:** It's beneficial as hard work is converted into smart work.
- Lower Human Financial Error: It is fast and fluently processed and makes less human errors.

2. LITERATURE REVIEW

The research has fulfilled part of the objective based on the following studies they have to be made with the effect of Artificial Intelligence in finance. Bahrammirzaee (2010), described how financial applications are observed to change behavior of financial decisions for uncertain situations. First analyzes the use of the old financial pattern in technology reform. This study was focusing on the change in traditional pattern of financial application in modern financial technology of artificial intelligence practices such as; artificial hybrid system, artificial neural network system and artificial expert system. The use of a smart system in the financial market is performed in investment portfolio management decisions, credit evaluation decisions, financial planning and prediction. The final result of this study stated that artificial intelligence in finance is more accurate while applying traditional financial applications. Future study should cover and find out the performance outcome and effect of AI in

financial application. Meryem Duygun Fethi (2009),explained assessment of banking performance by Artificial Intelligence while simultaneously presenting the bank application of O.R. technique for employment analysis and data operation. The study was elaborating the application of neural networks, multi criteria decisions and support vector machines for assessment of underperformance of banking systems. As a result, it has revealed that the profit efficiency and capacity efficiency received by the bank but falling in prediction of credit rating of banks and employees is not bootstrapping techniques, that's why the result was biased. Suggestions for future research should find out by the combination of prediction of individual models into integrated meta- classifiers in this area of AI research.(*. 2005). found computational intelligence in reference to Artificial Intelligence in finance. The study was mainly aimed at economic financial paradigms as well as covering the historical perspective of Herbert Simon. Herbert Simon was a founder of Artificial Intelligence and he had propounded Artificial Intelligence in finance and economics measurement. This study had already proven a construction fundamental for economics. The future decisions for a strong computation structure should be designed for economic and financial stock prices analysis. Tina Yu (2005), observed that the designed model of flow of capital via use of genetic programming. The model is identifying technical and trading rules in the international short term capital market. It is considering the use of simulation modeling to help in providing guidelines for capital market techniques. As a result, this simulation modeling is efficient for use in the short-term capital market. (Lin*2019), described that artificial intelligence is performing operations activity in the finance area to help make it easy to deal with financial deeds, make profitability, make finance cheaper, more accessible and more efficient in finance for smooth conduction. It is examining structural risk and financial limitations via AI. Artificial intelligence is feeding data code, data bias and measures risk in finance. As a result, this data code performs systematic risk observed in finance with the help of artificial intelligence. Further studies should intend to take an inside perspective and a wide range of issues covered in the Financial area by the Artificial Intelligence techniques. (Lin* T., 2016), explored the smart technology transformation in financial industries by the role of Artificial intelligence has focused on financial technology. It is offering various techno based services such as, solving compliances, trading, banking functions,

analysis, financial measurement and prediction, optimization and evaluation changes in financial area. The study was focusing on larger changes in financial activity performed by technology, and changing classical scenarios into new modern financial technical scenarios and it was inventing new financial technology. As a result, this is the role of technology emerging in the finance area and further studies need to invent new modern finance technology to change the financial scenario. (Kristin Johnson, 2019), experienced the innovation in finance via artificial intelligence and machine learning. The main aim is to make financial decisions that come from machines and machines take flawless financial decisions without any frauds. Presently, the consumer is accessing smart phones and tabs to use fintech. The fintech firm has taken decisions for credit and safety for money in banking and non-banking institutions. As a result, they are promoting accountability, transparency and financial technology in finance industries and their operations. (Bharti Kumari, January 2021), described the adaptation of artificial intelligence in finance and proposed to decide the approaches and design system for financial technology which is best for better and optimum financial services. Study promoting new financial modeling to inculcate awareness about artificial intelligence in the finance sector. As a result, this design feeds forward loop, dynamic approaches and model of conceptual framework of AI in finance. Further studies should concentrate on implementation of AI in financial sectors.

3. RESEARCH METHODOLOGY

The research method is desk and conceptual research. This research is propounded for new age financial learners and management students, who want to familiarize themselves with financial knowledge. The Research Design has been done on the basis of personal reading, observation and focus on the conceptual framework of artificial intelligence in financial performance. Data Collection: In this research the data has been reviewed from secondary sources such as books, research paper or journal articles, internet reports and newspaper articles etc.

Finding and Discussion

Data finding is based on technological reform with the role of AI in the Financial Industries. There are some basic stages to inculcate knowledge about technology driven in the financial sector and representing the role of AI in Finance see **table 1**.

S.No ·	Development Stages	Reform Technology	Mode or Services	Financi al Perfor mance	Impact of Technology in Finance (As Relationship)
1.	Fintech 1.0	Computer (Information Technology in Finance)	 (i) Credit Card, (ii) ATM, (iii) Customer Relationship in Management etc. 	Low	Technology as a tool in Finance.
2.	Fintech 2.0	Mobile Internet (Internet in Finance)	 (i) Third Party Payment (ii) E- Insurance (iii) E- Banking (iv) Crowdfunding (v) E- Commerce etc. 	Medium	Technology reforms financial activity such as offers and services to ease and convenience.
3.	Fintech 3.0	AI, Big data, Block Chain, Data Science (AI in Finance)	(i) Intelligent Finance (ii) Data Automation	High	Technology helps to make financial decisions with Machine intelligence.

Table - 1 AI In Finance: Stages Of Technology Reform Finance Sector

*Financial Driven.

The past and present performance of Artificial Intelligence in Finance is representing the classical and modern look. See **table** -2 & 3. They are representing the financial areas related to Financial Institutions & Services, Financial Market, E-

Financing, Financial Modeling and Financial System and simultaneously are presenting financial look, intelligence look, financial problems and AI techniques to reform financial issues with past and present performance (CAO, March 2018).

Financial	Finance	AI in Finance Look	Financial Problems	AI Techniques to
Area	Look			Handling and
				reform in finance
Financial	Credit	AI(Artificial	Major Problems:	Problem Solving by AI :
Institutions	Management,	Intelligence) based	Financial Fraud, Error	• Financial Analytics,
and	Risk	Automation	and Mistake, Credit	 Risk Analytics,
Services	Management,	Investment, Credit,	Rating Analysis,	• Game Theory,
	Loan	Loan, fund and Risk	Financial Valuation and	• Simulation,
	Management,	Management	Estimation Security,	 Optimization and
	Investment		Finance Optimizing,	Prediction Analytics,
	Portfolio		Financial Risk, Credit	• Smart Work by
	Management,		Risk Management,	Machine,
	Automation		Repayment of Loan	 Reinforcement
	Investment		Credibility, Financial	Learning Techniques,
	Management,		Loss and Crime,	• Profiling Techniques,
	Fund		Financial Mechanism,	Behavior Analytics
	Transfer		etc.	and Behavior
	Management			Information Method,
			Minor Problems:	 Classification in
			Set Financial Limit,	Clustering
			Financial Scheduling	Techniques
			Management, Financial	• Hypothetical or
			Predicting and	Probabilistic
			Forecasting related	Modeling
			Credit valuation,	• Semi – Supervised
			Estimation and	Learning Method,

Table – 2 AI in Finance: A Classical Look

	Optimization, Automation and Smart Investment, Machine based financing or Artificial financing, Financial Time Analysis	Optimization	and Modeling Movement, Volatility dynamics, Design Portfolio, Event and Market Risk Management, Investing Online and Offline Diversification Management, etc. Minor Problems: Market Volatility Dynamics, Explore and Optimizing Strategy, E- Trading Management, Algorithms, Choosing Platforms and services with Market Forecasting, etc.	 Time-Series Analysis Quantitative Analysis Game Theories Risk Analysis Sequence Analysis and Dynamic Process Market Representation Learn To Rank Portfolio Optimization Techniques, etc.
Financial System	Acquaintance Financial Systems	Modeling and Economic Financial Mechanisms	Major Problems:FinancialProcess,Interaction,PatternDesign,Modeling PolicyPattern,FinancialPricing,Path,etc.Minor Problems:Hypotheses,FinancialRelations,FinancialServices& Trading,Movement & Financialeffect,etc.	 Statistical Modeling Machine Learning Theories of complex Systems Simulations and Modeling Qualitative and Quantitative Techniques Mathematical Modeling Game Theories, etc.

Table – 3 AI In Finance: A Modern Look

Financial	Finance Look	AI in	Financial Problems	AI Techniques to Handling	
Area		Finance		and reform in finance	
		Look			
Financial	Insurance	AI: As a	Property Valuation and	 Text Analysis 	
Institutions	Management,	Smart	Estimation, Site Selection	Social Media Analysis	
and	Wealth and	Alternative	and Evaluation, Property	Behavior Analysis	
Services	Property	Finance	Policies rules and	Simulation Theory	
	Management,		Governance, Supply and	Profiling Method	
	Foreign		Demand, Property	Statistical Learning	
	Exchange		Optimization, Insurance	Numerical	
	Market		Services and Products for	Computational	
	Management		Selections, Pricing and	Knowledge Discovery	
	and Energy		Market Positioning for	and Evaluation	
	Management		Insurance, Risk	Data Mining	
			Management, Market:	Recommender System	
			Personalization,	Mathematical Modeling	
			Recommendation and	Risk Analytics	
			Customization, Predicting	Deep Learning	
			Currency Rating and	Artificial Neural	
			Exchange Rate, Discovering	Network	
			Wealth of People, Investment	Coupling Learning	
			Portfolio, Marketing Services	Model and Multi Source	
			and Promotions, Services and	Analysis	
			Customer Support and Care,	Multivariate Time Series	
			Training Services for	Dependence Modeling	
			Society, Change and New	Optimization Method	

			Pequirements ato	Influence Modeling
			Requirements, etc.	 Influence Modeling Anomaly and Exception Analysis Event Analysis Sentiment Analysis Active and Intent Learning Prediction Analysis Capability and Propensity Modeling, etc.
Financial Market	Cross Market Analysis and Micro and Macro Economic Market Performance Analysis	Global and Cross Market Performance and Analysis	Micro/ Macro Financial Variables and Modeling Testing, Analyzing and Coupling Interactions and Relations between Economics, Influencing Level and Movements, Cultural and Political issues between Financial Variables, Derivatives, Regions, Companies Performance, Financial Indicators in social culture and economical factors, Countries Indicators etc.	 Machine Learning Statistical Modeling Mathematical Modeling Multisource Analysis Behavior Analytics Event Analysis Hybrid Methods Relation Learning Method Coupling Learning Dependence Modeling Interaction Learning Technique Multivariate Analysis Sequence Modeling, etc.
E- Financing	Smart Banking and E- Payment, Artificial Intelligent E- Commerce, Internet Banking & Finance	Artificial Intelligent Online Banking, Mobile, IoT- based and Internet Finance	Risk Fraud & Security Issues, Online Market Demand & Supply, Online Financial Product and Services, Estimation & Prediction, Online Marketing, Delivery, Storage, Online Mobile Payment and Support, Secure Fund, Online Insurance, Automation and Online Banking, Online Fraud and Credit, Internet based Services, Online Investment and Wealth, Internet Finance and Behavior, etc.	 Risk Analytics, Behavior Analytics User Modeling Social Media Analysis Technique Web Analysis Profiling Technique Text Analysis Predictive Modeling Network Analysis Deep Learning Trajectory Modeling Machine Learning and Data Mining Online Web Analysis Security Informatics Behavior Informatics Distributed Learning Technique Recommender System, Outlier Detection Method etc.
Financial Modeling	Blockchain Systems, Security & Mechanisms	Artificial Intelligent Blockchain	Blockchain Modeling and Financial System, Risk – Averse and Anti Attack Blockchain, Optimizing Portfolio and Product Pricing, Blockchain Mechanisms, Evaluating and Use Bitcoin, Cryptographic Contact Model, Enabling Secure, Smart Contract,	 Supervised and Unsupervised Learning Fraud Detection Analysis Process Analysis Event Analysis Technique Agent- Based Learning Game Theories Risk Analysis Representation Learning

Einoncial	Corporato	Favorabla	Privacy, Detecting and Mitigating Malicious Attacks and Criminal Activity, Governance and Regulation, etc.	 Online Learning Machine Learning and Deep Learning Theories of Complex System Method Distributed Learning Method Reinforcement Techniques, Change Detection Behavior Analysis Benchmarking Outlier Detection Semantic Web Prediction and Optimization Technique , etc.
Financial System	Corporate Financing and Smart Operations & Regulation	Favorable and Optimal Governance, Operations, Regulation	Corporate Governance and Regulation Performance Issues, Problems of Risk and Loss in Operations & Governance, Discovering Factors, Operation Evaluation and Optimization Simultaneously Financial Regulation and Performance issues, Personnel and Service Risk Management, Payment and Fraud issues, Financial Balancing and Budget, Prediction, Auditing, Detecting and Mitigating issues, Risk and Behavioral issues, etc.	 Financial Time Series Analysis Behavior Analysis Interactional Modeling Risk Analysis Method Multisource/ Model Analysis Process Analysis Relation Modeling and Learning Probabilistic Supervised and Unsupervised Learning Event Analysis Representation Learning Anomaly Detection Method Prediction Method Numerical Optimization, etc.

4. CONCLUSION

The conclusion of this research emphasizes the AI patterns of high hopes in increasing flawless transactions and decisions which are helping the public and the corporate funds and accounts to be secured. The study has designed digital platforms for all individuals and corporations. The study also manages personal financial planning without any error. Further studies should make smarter decisions for future financial goals and also prepare financial plans on the basis of AI. Future studies should be based on taking easier as well as smarter decisions and designing smart investment plans as per the income level of investors. So, as we can say that AI is beneficial for all circumstances and it can also handle multiple financial tasks. Hence technology is always better for good results, better learning and progress in the long run.

In the present time a change is required because change gives us chances to learn as well as the platform for adaptation of innovative think and technology. Simultaneously, technology will be applicable in human life to become smarter. The technology comes from machine and machine performs flawless work in the optimum time period. Artificial-intelligence work will be smart. Need to think about smart work in the place of hard work. In the future, AI will boost the performance level of mankind in the context of being technology driven.

Now, Artificial intelligence is boosting confidence level for performing financial activities very smoothly via machine. Perhaps, upcoming years mostly take decisions by machine without any errors or frauds. Financial decisions such as credit decision, investment decision, and fund transfer decision preprocessed by artificial intelligence and AI will be applicable in all disciplines such as transportation department, finance department, marketing department, manufacturing, engineering, agriculture etc. After a few years, the machine will perform all tasks very smartly and also will be accomplished in a particular period of time.

Artificial intelligence in the future: A machine will take decisions, perform tasks, use time, perform tasks easily, accomplish work by instruction, keep financial resources safe, take favorable financial decisions, do flawless work, conduct error free tasks etc.

Future expectation from AI:

AI prediction will be applicable in financial services. It is reshaping and innovatively designing financial activity in the financial industries such as banking, non-banking, financial advisory, financial market, credit rating industries, customer relationship and interaction and so on.

5. REFERENCES

Book Chapter

- 1. Bharti Kumari, J. K. (January 2021). System Dynamics Approach for Adoption of Artificial Intelligence in Finance. Springer Nature Singapore Pte Ltd. 2021 V. H. Saran and R. K. Misra (eds.), Advances in Systems Engineering, , 555-575.
- Kristin Johnson, *. F. (2019). Artificial Intelligence, Machine Learning, And Bias In Finance: Toward Responsible Innovation. *Fordham Law Review*, 499-529.
- 3. Kunwar, M. (2019). *Artificial Intelligence in Finance :Understanding how automation and machine learning is transforming the.* Thesis Centria University of Applied Sciences.
- 4. Meryem Duygun Fethi 1*, F. P. (2009). Assessing Bank Performance with Operational Research And Artificial Intelligence Techniques: A Survey. University of BathSchool of Management, Working Paper Series, 2.
- 5. Tina Yu, S.-h. C. (2005). A Genetic Programming Approach to Model International Short Term Capital Flow. *Advances in Econometrics*, 45-70.
- Xiao-lin, Meng-ying, Qi-bing, Chaochao,Yan-chao(May, 2010). FinBrain: When Finance Meets AI 2.0*, Frontiers of Information Technology & Electronic Engineering Press, ISSN 2095-9230

Journal Article

1. Bahrammirzaee, A. (2010). A Comparative Survey of Artificial Intelligence in Finance:

Artificial Neural Network, Expert System and Hybrid Intelligence System. *Neural Comput & Applic,Springer*, 1165–1195.

- 2. CAO, L. (March 2018). AI in Finance: A Review. ACM Comput. Surv., Vol. 9, No. 4, .
- Lin*, T. C. (2019). Artificial Intelligence, Finance, And The Law. *Fordham Law Review* , [Vol. 88
- Lin*, T. (2016). Compliance, Technology, And Modern Finance . *Brook.J.Corp.Fin.&Com.L.*, [Vol.11.
- 5. Patel, K. (2018). Artificial Intelligence in Finance. *IJSART* Volume 4 Issue 4, 2395-1052.
- 6. S.-H. C. (2005). Computational intelligence in economics and finance: Carrying on the legacy of Herbert Simon. *Information Sciences An International Journal*, 121–131.
- 7. Xie, M. (2019). Development of Artificial Intelligence and Effects on the Financial System . *Journal of Physics: Conference Series*, 1187.

Webpage

- 1. (2020). *FinTech:Shaping the Financial World*. MIT OpenCourseWare
- (2018). The new physics of financial services: how artificial intelligence is transforming the financial ecosystem. Deloitte.co.uk/AIFSfuture.

Report

- Azulay, D. (2019). Artificial Intelligence in Finance – a Comprehensive Overview. Boston: Emerj: The AI Research and Advisory Company.
- 2. Bachinskiy, A. (2019). *The Growing Impact of AI in Financial Services*. Canada: Towords Data Science Medium .
- 3. Bonnie G. Buchanan, P. F. (2019). *Artificial intelligence in finance*. Washington: The Alan Turing Institute .
- Chi Chan, D. C. (2019). ARTIFICIAL INTELLIGENCEApplications In Financial Services. Oliver Wyman INC. All Rights Reserved.
- 5. Laurent Dupont, O. F. (June 2020). Governance of Artificial Intelligence in Finance. Fintech-Innovation Hub, ACPR.
- 6. Schroer, A. (2019). *Artificial Intelligence in Finance*. Builtin .
- 7. (2021). 5 Ways AI is Transforming the Finance Industry. Maruti Techlabs.