

## THE ROLE OF ARTIFICIAL INTELLIGENCE IN STRENGTHENING FINANCIAL STABILITY FOR A VIKSHIT BHARAT

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### Abstract:

*As India works towards becoming a developed and self-reliant nation, it is important to recognize how emerging technologies like Artificial Intelligence (AI) can help improve financial stability. While most discussions about AI focus on businesses, this research looks at college students, who will be both future professionals and key contributors to the economy.*

*This study explores how students view AI's role in predicting financial problems and its ability to promote economic stability in India. It examines their awareness of AI-based financial tools, their understanding of using AI for personal financial management, and their thoughts on how this aligns with national initiatives like Atmanirbhar Bharat and Digital India. Through surveys and group discussions, the research collects insights from a diverse group of students from various academic fields.*

*The findings highlight gaps in knowledge and suggest ways to include AI and financial literacy in educational programs. This paper concludes that helping students understand AI's financial uses will prepare them for future jobs and support India's aim to become a leading global economy under the vision of Vikshit Bharat.*

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### Introduction:

Fake Insights (AI) plays a critical and developing part in today's world, affecting about each segment of society. From healthcare and transportation to back, amusement, and indeed the imaginative expressions, the way we live, work, and connected. Counterfeit Insights (AI) plays a pivotal part in keeping up the budgetary soundness of companies by moving forward decision-making, optimizing operations, and relieving risks. Risk Administration and Relief, Prescient Analytics and Money related Estimating, Improved Decision-Making, Progressed Corporate Administration, AI in Vital Mergers and Acquisitions AI gives companies with effective apparatuses to upgrade budgetary steadiness by progressing decision-making, overseeing dangers, optimizing operations, and guaranteeing compliance with controls. With its

capacity to handle endless sums of information in genuine time and anticipate future patterns, AI engages companies to form proactive, educated choices that defend their money related wellbeing and long-term reasonability. As AI proceeds to advance, its part in advancing monetary soundness will as it were gotten to be more pivotal, especially in an progressively data-driven and interconnected worldwide economy. Understudies nowadays are progressively getting to be mindful of the part Fake Insights (AI) plays in fortifying money related soundness, much appreciated to a few variables, counting headways in instruction, innovation, and real-world applications. This mindfulness is particularly vital for understudies seeking after careers in areas like fund, financial matters, commerce, and innovation. understudies nowadays are progressively mindful of the part AI

plays in fortifying budgetary soundness through their formal instruction, hands-on encounter, get to to AI apparatuses, and presentation to real-world monetary applications. As AI proceeds to development, future experts in fund, financial matters, trade, and innovation will be way better prepared to saddle AI's potential to make strides monetary frameworks, moderate dangers, and guarantee the long-term solidness of businesses and economies. As it continues, future professionals in finance, economics, business, and technology will be better equipped to harness AI's potential to improve financial systems, mitigate risks, and ensure the long-term stability of businesses and economies.

#### **Litreature Review:**

##### **Study of International Monetary Fund (IMF):**

We must first admit that AI can be good news from a stability point of view. For banks, AI can bring new opportunities and benefits such as productivity gains, cost savings, better regulatory compliance or Reg Tech and more tailored offers to clients. In financial markets, technology has done a great job in improving price discovery, deepening markets and often calming down markets in times of stress. And AI will do the same.

However we have seen some limited negative impact of quantitative trading in some sudden market dislocations and there are fears that these risks could increase with AI. We also have to be always on the lookout for how AI could amplify traditional financial stability channels such as interconnectedness, liquidity and leverage. Luckily regulators are aware of these issues and following the Global Financial Crisis they put in place the necessary tools and regulation to tackle these questions. So financial system is 720

##### **Study of Financial Stability Board(FSB):**

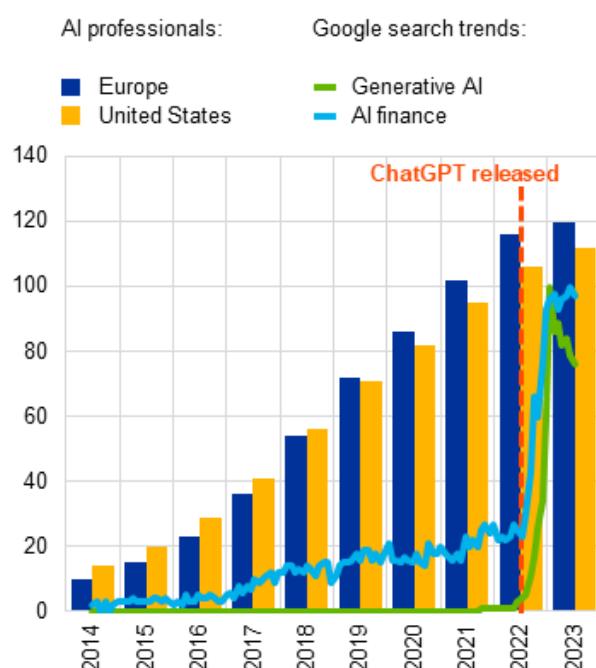
In recent years, significant technological advancements, along with a substantial increase in computational power, have led to an impressive transformation. This rapid technological progress and remarkable boost in computational capabilities have

enabled numerous innovations and improvements in various fields. These developments have resulted in a wide array of benefits and opportunities that were once unimaginable. The notable trend of financial firms and supervisors adopting AI is significant. AI offers many benefits, including a substantial 3-fold increase in various areas. These benefits include enhanced efficiency, improved accuracy, and the ability to process vast data at a faster pace. Financial institutions and regulatory bodies are increasingly seeing AI's potential to transform operations and decision-making. By using AI, they can achieve a more streamlined and effective way to manage financial transactions, risk assessment, and compliance. This AI adoption is vital for staying competitive in the rapidly changing financial world. Operational efficiency, regulatory compliance, financial product customization and advanced

The field of analytics has undergone a significant transformation with the rise of generative AI (GenAI) and large language models. This development has expanded the range of use cases now possible. These advanced technologies have opened new avenues for applications in various domains, offering more sophisticated and versatile solutions. Whether in natural language processing, content generation, or complex narrative creation, GenAI and large language models have revolutionized analytics. These tools can generate human-like text, understand complex queries, and assist in decision-making, enriching analytics with unprecedented capabilities. It has become increasingly diverse, with Artificial Intelligence (AI) offering numerous benefits like improved operational efficiency. AI also provides regulatory advantages vital in today's complex and evolving landscape. The study carried out by Georg Leitner, Jaspal Singh, Anton van der Kraaij, and Balázs Zsámboki is known as Study 1. The report advocates for the enhancement of monitoring efforts by national financial authorities and

international bodies to ensure comprehensive oversight of artificial intelligence (AI). This focus on improved monitoring is vital for maintaining a robust and secure environment as AI evolves and influences various sectors. By enhancing monitoring capabilities, these authorities aim to address potential risks, promote ethical AI practices, foster innovation, and protect

against adverse effects. Among the developments, a crucial task is to evaluate if financial policy frameworks are considered adequate. Moreover, there is a need to improve their regulatory aspects and supervisory capabilities including by using AI-powered tools.



## Research Methodology:

### Research Objective:

To explore the awareness, perception, and understanding of college-going students regarding the role of Artificial Intelligence (AI) in financial stability and its contribution to India's vision of Vikshit Bharat.

### Research Questions:

How aware are students of the applications of AI in financial problem-solving?

What is the level of understanding among students regarding AI's role in financial stability?

How do students perceive AI's alignment with India's economic goals like Vikshit Bharat?

What are the gaps in financial literacy and AI knowledge among students, and how can they be?

### a. Research Approach

- Quantitative and Qualitative: Combines surveys to gather broad insights and focus groups for in-depth understanding.

### b. Target Population

- College-going students from various academic backgrounds, including management, technology, and humanities.

### c. Sampling Method

- Sampling Technique: Stratified random sampling to ensure representation across different academic disciplines, genders, and year groups.
- Sample Size: 50-60 students (60 survey respondents).

#### d. Data Collection Methods

##### Surveys:

- Online questionnaires distributed via Google Forms or other platforms.
- Focus on awareness, usage, and perceptions of AI in financial management.
- Focus Group Discussions:
- 5 groups of 10 students each
- In-depth discussions on personal experiences, challenges, and opinions about AI and financial tools.

#### e. Research Tools

- Structured questionnaires for surveys..

##### Hypotheses:

**H1:** Students with a background in finance or AI have a better understanding of financial problems and how AI can help.

**H2:** Most students perceive AI as a useful tool for predicting financial problems but have concerns about trust and costs.

##### Data Collection:

##### Primary Data:

- An online questionnaire will be used to collect responses.
- Includes a mix of closed-ended questions (MCQs, rating scales) and open-ended questions for qualitative input.

##### Secondary Data:

- Reference articles on AI in financial predictions.
- Case studies of AI applications in business risk management.

##### Data Analysis:

##### Quantitative Analysis:

- Statistical tools (e.g., percentages, averages) to summarize student opinions and awareness levels.
- Cross-tabulation to analyze differences based on educational background.

##### Qualitative Analysis:

- Thematic analysis of open-ended responses to capture nuanced views.

##### Ethical Considerations:

- Participation will be voluntary, with the option to remain anonymous.
- Data will be used solely for academic purposes and stored securely.
- A brief explanation of the study's purpose will be shared with participants

**Scope:** Focuses on college students' perspectives, providing insights into their understanding of AI and financial issues.

**Limitations:** Limited to students' perceptions, which may not reflect industry realities. Results may not be generalizable due to the convenience sampling method.

##### Expected Outcomes:

- Insights into students' awareness of financial issues and AI's potential role.
- A better understanding of students' trust in AI for financial predictions.

#### How aware are students of the Utilization of AI in financial problem-solving?

The awareness of students regarding the applications of AI in financial problem-solving varies significantly depending on factors such as their academic background, exposure to AI-related content, and interest in the finance or technology fields. However, here are a few key points that reflect the general awareness among students:

##### 1 .Exposure through Academic Curricula:

Students studying finance, economics, and business are generally exposed to the part of innovation in financial problem-solving. Many finance courses now cover the basics of AI, machine learning, and data science, with specific applications to financial modeling, risk analysis, and algorithmic trading.

## 2. Technological Awareness:

While students in non-technical fields may not have in-depth comprehension of the mechanics of AI in finance, many are becoming aware of its use due to the increasing of popular fintech tools like mobile payment apps, budgeting apps, or personal finance platforms that leverage AI.

## 3.Public Awareness and Media Influence:

AI's increasing prominence in mainstream media, especially around the topics of financial technology (fintech) and automated services, has helped raise general awareness. Events like the growing adoption of AI in trading systems, AI-based banking services, and financial planning tools have caught the attention of a wider audience, even among students without specialized training.

Overall, while there is a growing awareness of AI in financial problem-solving among students, the depth of that awareness varies. Students in technical and business-related fields tend to be more knowledgeable, especially those with an interest in fintech. Meanwhile, students in other disciplines may have a more surface-level understanding, often shaped by the practical use of AI-powered tools rather than an in-depth grasp of underlying technologies. The awareness gap could be bridged as AI and fintech become increasingly integrated into mainstream financial services.

### What is the level of understanding among students regarding AI's role in financial stability?

The level of understanding among students regarding AI's role in financial stability varies based on their academic background, exposure to AI concepts, and their focus on finance, economics, or technology. However, some common trends can be observed across different student groups:

#### 1.Business, Finance, and Economics Students:

Students pursuing finance, business, and economics are often aware of how AI can influence financial stability. Any finance students are aware that Intelligence plays

a vital role in risk management, such as through the market volatility, and potential systemic risks. While business students are aware of AI's role in financial stability, they may have limited knowledge of its potential risks, such as algorithmic biases or over-reliance on data that could lead to systemic errors.

#### 2.General Awareness in Non-Finance or Non-STEM Students:

Students in fields outside of finance or technology (such as humanities, arts, or social sciences) tend to have a lower level of understanding of AI's role in financial stability. They may have a basic awareness that AI is used in finance but are often unaware of its specific applications for maintaining or enhancing financial stability. These students may hear about AI in the context of global financial crises or economic issues through media, where AI is often discussed as a tool to prevent future crashes, detect fraud, or maintain liquidity in markets.

#### 3.Awareness of Risks and Ethical Concerns:

Advanced students, especially in business and finance, are often aware of the risks associated with over-reliance on AI in ensuring financial stability. They understand that AI systems, if poorly designed or implemented, can lead to unforeseen consequences such as market manipulation or exacerbation of financial bubbles. Students in more specialized courses may be aware of ethical challenges which could affect financial stability by favouring certain groups or sectors over others, leading to unequal access to financial services. They may also discuss the challenge of ensuring transparency and fairness in AI-driven financial systems.

Overall, students' understanding of AI's role in financial stability is generally moderate among those in business and finance disciplines, especially with an increasing focus on technology in these fields. STEM students are well-versed in the technical aspects but may lack specific financial context. Non-specialized



students may have limited awareness beyond media coverage of AI's benefits in preventing financial crises or enhancing efficiency. Better Understanding of the complexities, risks, and broader impact on financial stability is generally limited to more advanced learners in finance or technology-focused disciplines.

### **How do students perceive AI's alignment with India's economic goals like Vikshit Bharat?**

Students' perceptions of **AI's alignment with India's economic goals**, such as **Vikshit Bharat (Developed India)**, vary depending on their educational background, exposure to technology, and understanding of India's development agenda. **Vikshit Bharat** aims to transform India into a developed, inclusive, and sustainable economy by 2047, focusing on areas like economic growth, infrastructure development, education, healthcare, and technological innovation. Given this ambitious vision, AI is seen by many students as both a **tool** and a **driver** of India's economic progress. Here's a breakdown of how students perceive AI's role in achieving **Vikshit Bharat**

#### **1.AI as a Key Driver of Economic Growth:**

Many students, especially those in **technology** and **business** fields, see AI as a **crucial enabler** for India's economic growth and **industrial development**. : AI can help enhance productivity in sectors like manufacturing, agriculture, and services, contributing to the goal of building a competitive, globally integrated economy. While many students believe AI will also create new opportunities in **AI development**, **data science**, **machine learning**, and **robotics**, which are crucial for India's evolving digital economy.

#### **2. AI in Agriculture and Rural Development:**

India's large rural population and agricultural sector are a significant part of the **Vikshit Bharat** vision. Students studying **agriculture**, **engineering**, or **rural development** perceive AI as a **transformative tool** for improving agricultural productivity and rural incomes.

AI can enhance crop yields by providing real-time data on soil health, weather patterns, and pest control, thus contributing to **sustainable farming** and food security.

#### **3.AI's Role in Education and Skill Development:**

AI is seen as a powerful tool for enhancing **education** and **skill development**, which are key aspects of India's **human capital development**. Students see AI's potential in: AI can help tailor educational content to individual learning styles and paces, making education more inclusive and accessible.AI-driven platforms can provide **vocational training** and upskilling opportunities, helping students and workers in various sectors acquire skills aligned with future job demands, especially in the growing AI, data science, and tech industries.

#### **4.AI in Governance and Infrastructure Development:**

Students also recognize AI's potential in transforming governance, public services, and infrastructure development—critical aspects of a **modern, efficient** economy.AI can drive the development of **smart cities** by improving urban planning, traffic management, waste management, and energy efficiency, aligning with goals for **sustainable urbanization**.AI-powered platforms can enhance **service delivery** in government sectors, improving efficiency, reducing corruption, and ensuring transparency in public administration.

#### **Mixed but Optimistic Perception:**

In conclusion, students in India generally perceive **AI as a key enabler** for achieving the **Vikshit Bharat** vision, particularly in sectors such as agriculture, healthcare, education, and governance. However, they are also aware of the challenges, such as the risk of job displacement, ethical concerns, and the digital divide, which could hinder the equitable distribution of AI's benefits. As AI continues evolving into various aspects of India's economic and social fabric, students' understanding and perception of AI's role in India's development goals will likely deepen, driven by

educational initiatives, policy frameworks, and the increasing presence in everyday life

### **What are the gaps in financial literacy and AI knowledge among students, and how can they be addressed?**

Students in India (and globally) often face significant gaps in both **financial literacy** and **AI knowledge**, which can limit their ability to navigate the increasingly complex financial and technological landscapes. These gaps can be divided into distinct categories:

#### **1. Financial Literacy Gaps:**

Many students lack understanding of fundamental financial concepts such as **budgeting, savings, interest rates, credit, and investment**. This is especially true for students in non-business, non-commerce disciplines. : There is limited knowledge about **financial instruments** (stocks, bonds, mutual funds), **banking products** (loans, credit cards), and **insurance**. Students may not fully comprehend the risks and benefits of these products, nor how to use them effectively. Many students are not well-equipped to manage personal finances, create a financial plan, or think long-term about financial security, such as retirement savings or emergency funds or business studies may lack a comprehensive understanding of **global financial systems, monetary policy, and the macro and microeconomic factors** that drive financial markets and the economy.

#### **2. AI Knowledge Gaps:**

Many students, particularly those outside technical fields, may lack a fundamental understanding of **what AI is**, how it works, and how it is applied in real-world contexts. Terms like **machine learning, deep learning, processing, neural networks** might be unfamiliar to students without a technical background. Even students in **business** or **economics** fields may not fully grasp how AI is used in areas such as **automated trading, risk management, fraud detection, credit scoring, and predictive analytics**. They may not

understand the financial services and decision-making in the AI. While students might be aware of the advantages of AI, they may lack knowledge of its ethical implications, including issues such as **bias in algorithms, data privacy, job displacement, and the digital divide**.

#### **How These Gaps Can Be Addressed:**

##### **1. Integrating Financial Literacy into the Curriculum**

Financial literacy should be integrated into **primary and secondary school curricula**. This could include topics such as basic budgeting, saving, understanding debt, and financial planning. Hands-on tools and simulations could make learning more interactive. Incorporating **financial literacy** as part of the **general education** requirement for all students (not just those in business or finance courses) would ensure broader access to important financial concepts. Schools and universities can organize workshops, guest lectures, and seminars on financial literacy, inviting experts from banks, financial institutions, and the fintech sector.

##### **2. Partnerships with Industry:**

Universities can partner with financial institutions, **fintech companies**, and **AI startups** to provide students with real-world case studies and internships that expose them to how AI is being applied to financial services and problem-solving. Inviting industry professionals to deliver lectures and offer mentoring can provide students with practical insights into both financial literacy and AI applications in the financial sector.

##### **3. Government and Institutional Support:**

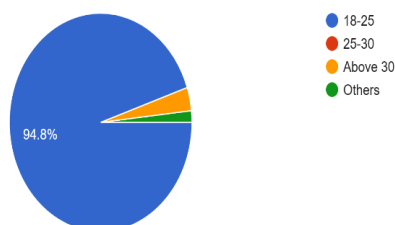
Governments could incentivize financial literacy and AI education through **national programs** and campaigns, similar to **Financial Literacy Week** or **Digital India** initiatives. Public-sector banks and financial institutions can also collaborate to improve financial education among students. Encouraging

universities to focus on **research** at the intersection of **AI and finance**, including topics such as **AI ethics**, **financial stability**, and **AI-driven financial inclusion**, can prepare students for future challenges in this space. The gaps in **financial literacy** and **AI knowledge** among students can hinder their ability to fully

**RESULTS/OUTCOMES:**

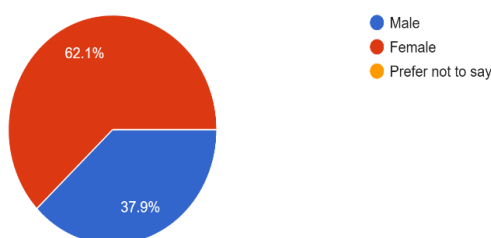
**Surveys(Through the Google Forms):**

AGE:  
58 responses



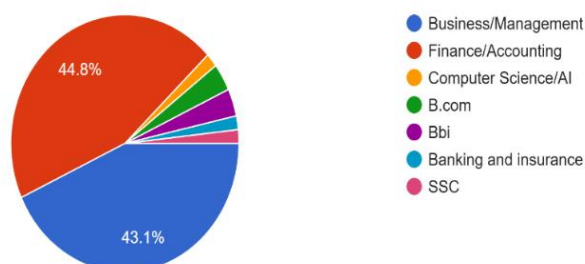
This above Represents the ranges of Ages of people .

GENDER:  
58 responses



This Pie chart represents the Gender of the people.

What are you studying?  
58 responses

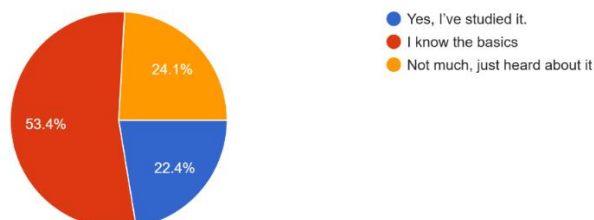


The Above represents the Education of the people. All streams have the knowledge of the AI,



Do you have any knowledge about Artificial Intelligence (AI)?

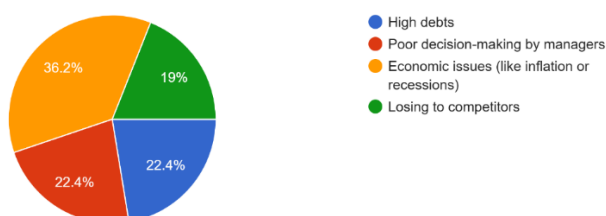
58 responses



It represents the Awareness about the AI among the students and General people.

In your opinion, what are the main reasons companies face financial trouble? (Select all that apply)

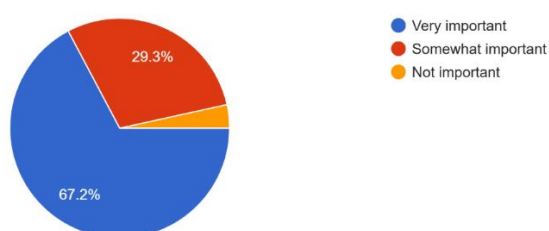
58 responses



This pie chart represents the students and people perspective what can be the main reasons that companies faces as financial trouble.

Do you think it's important to predict if a company is going into financial trouble?

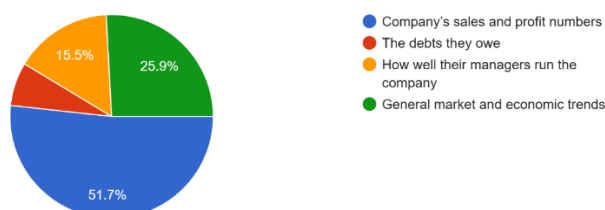
58 responses



This pie chart represents the how important to predict the financial Trouble in the companies.

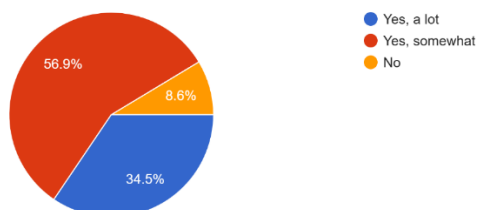
What kind of information do you think helps in predicting financial trouble for companies?

58 responses



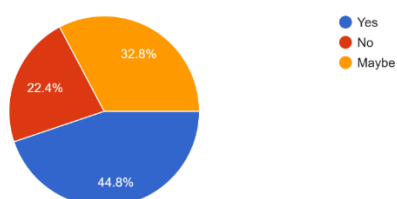
This pie chart represents the Students perspective that which data can help the companies to predict the financial trouble.

Do you think AI can make predicting financial problems easier or better?  
58 responses



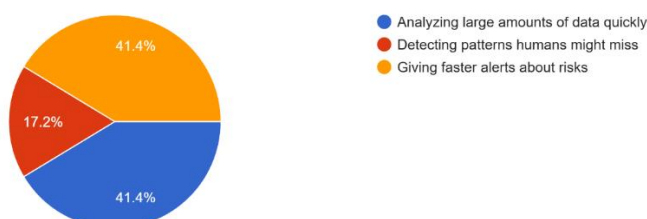
This pie chart represents the perspectives of students ,Is AI can help in predicting the financial problems for the companies easier or better,

Have you heard of AI being used to predict financial problems for companies?  
58 responses

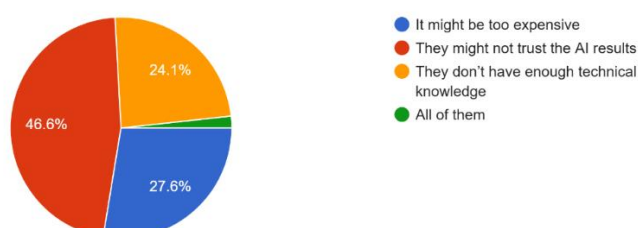


This pie chart represents that the students are aware of that the artificial intelligence can predict the financial problems.

In your opinion, how can AI help in financial predictions? (Select all that apply)  
58 responses

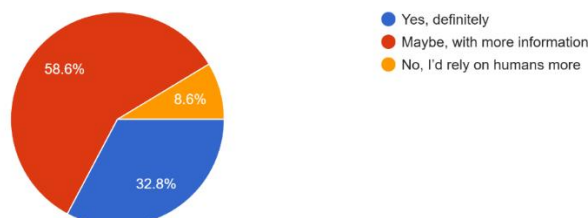


What might stop companies from using AI for these predictions?  
58 responses



Would you trust AI predictions when deciding on company investments or risks?

58 responses



As the Above Survey is all about how the students have the Awareness about the Artificial Intelligence helps in Financial Stability of the companies and what can be the main reasons for the financial trouble to the companies. It helps to analyse the students awareness how AI will help for the business and the Vikshit Bharat.

### Conclusion:

Since 2017, AI adoption in financial services has spread and use cases have grown. AI can bring many benefits like operational efficiency, regulatory compliance, personalized financial products, data and analytics capabilities. AI in financial services can exacerbate some financial vulnerabilities with implications for financial stability. Factors like wider

adoption of powerful and complex AI techniques, LLMs and GenAI, specialized hardware and infrastructure services, unstructured and opaque data sources have increased the systemic risk of AI in finance. AI will be one of the developed technology in India, which will be one of the factor for Vikshit Bharat.

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