

A Study on the Influence of Artificial Intelligence (Ai) on Financial Literacy Among College Students

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Abstract

Financial literacy is a critical competency for young adults, particularly college students, who are beginning to manage personal finances and make independent financial decisions. The emergence of Artificial Intelligence (AI) has introduced innovative tools such as robo-advisors, AI-powered financial learning platforms, chatbots, and digital budgeting applications, which aim to simplify financial education. This project proposes to examine the influence of AI on financial literacy among college students, focusing on awareness, adoption, and effectiveness. Using both primary and secondary data, the study will assess whether AI significantly enhances students' financial knowledge, attitudes, and decision-making. The results are expected to provide valuable insights for educators, policymakers, and financial institutions in designing AI-enabled financial literacy programs tailored to youth.

INTRODUCTION

Financial literacy has been defined as “the possession of knowledge and understanding of financial matters, the ability to make informed judgment and to take effective decisions regarding the use and management of money.” For college students, financial literacy is particularly important as they face growing responsibilities, including managing student loans, using digital banking, and planning for early career goals. Despite increasing emphasis on financial education, several studies indicate that young adults often lack adequate financial literacy, which may lead to long-term financial instability.

At the same time, AI has rapidly emerged as a transformative force in the financial sector. Applications such as personalized finance apps, robo-advisors, AI-driven credit scoring, and gamified learning tools are becoming increasingly accessible. These platforms can offer customized financial advice, simulate financial scenarios, and provide real-time support for financial decisions. However, questions remain regarding the extent of adoption among students, their level of trust in AI-based tools, and the actual improvement in financial literacy outcomes.

This project seeks to bridge this gap by systematically studying the role of AI in influencing financial literacy among college students.

Scope of the study

The study uses survey responses to investigate the extent of AI awareness, financial literacy, perceptions, and AI tool usage among college students. It provides a descriptive understanding of how artificial intelligence is currently used for financial learning and management in the student community.

Review of Literature

Lusardi and Mitchell (2014) investigated financial literacy among college students and young adults and discovered significant differences according to age, gender, and educational background. The study found that many students have limited financial knowledge. Their findings emphasize the importance of using demographic profiles to assess financial literacy levels among college students.

Zheng et al. (2018) investigated the use of artificial intelligence in educational settings and concluded that AI-based learning tools improve student engagement and comprehension. The study found that students' awareness and familiarity with AI technologies influences their effectiveness in use. This reinforces the need to assess students' awareness of AI using descriptive analysis.

Lusardi, Mitchell, and Curto (2010) studied financial literacy in young adults and discovered that a significant proportion of students lack basic financial knowledge. The study discovered gaps in understanding basic financial concepts like saving and budgeting. These findings support evaluating the level of financial literacy among college students

Mhlanga (2021) investigated the role of artificial intelligence in financial education and discovered that AI-enabled tools increase student engagement and confidence when learning financial concepts. The study found that students had positive attitudes toward the use of AI in financial education. This emphasizes the significance of evaluating students' perceptions of AI in improving financial knowledge and decision-making.

The Organisation for Economic Cooperation and Development (OECD, 2020) examined the use of digital technologies in financial education and discovered varying patterns of technology adoption among students. The study discovered variations in the frequency and purpose of using digital financial tools. This highlights the need to investigate the use patterns of AI tools for financial learning and management.

Objectives of the Study

To analyze the demographic profile of college students.

To measure the level of awareness of Artificial Intelligence (AI) among college students.

To determine the level of financial literacy among college students.

To assess students' perceptions of artificial intelligence's role in improving financial knowledge and decision-making.

To determine the usage pattern of AI tools for financial learning and management among college students.

Research Methodology

Research Design: A descriptive research design was used.

Sampling Technique: The practical sampling technique was applied.

Data sources included both primary and secondary data, with primary data collected through a structured questionnaire and secondary data obtained from journals and websites.

Sample Size: The questionnaire was sent to 150 people, and 110 responded.

Statistical Tools: Frequency analysis was used.

Limitations of the study

The study employed convenient sampling, which may limit the generalizability of the findings.

Data was gathered using self-reported questionnaires, which could lead to response bias.

The study focuses solely on a subset of respondents, which may not reflect broader population

perspectives.

Analysis and Interpretation

Demographic Profile of the respondents

Table 1

	PARTICULARS	PERCENTAGE	FREQUENCY
Age	Below 18	17.3	19
	18-20	44.5	49
	21-23	38.2	42
	Total	100	110
Gender	Male	15.5	17
	Female	84.5	93
	Total	100	110
Year of study	UG -I Year	29.1	32
	UG -II Year	3.6	4
	UG -III Year	43.6	2
	PG -I Year	1.8	48
	PG -II Year	21.9	24
	Total	100	110
Family monthly income	Below Rs.25,000	40.9	45
	Rs .25,001- Rs. 50,000	20	22
	Rs. 50,001 – Rs.100,000	28.2	31
	Above Rs. 100,000	10.9	12
	Total	100	110

From the above table, it is concluded that the majority of respondents (44.5%) are between the ages of 18 and 20 years. Female students account for 84.5% of all respondents. The majority of participants (43.6%) are UG III year students, with a higher percentage (40.9%) coming from families earning less than ₹25,000 per month. This demonstrates that the study primarily represents young undergraduate students from low-income households.

Awareness and Usage of AI- powered financial tools among college students

Table 2

	PARTICULARS	PERCENTAGE	FREQUENCY
Awareness of AI powered financial tools	Yes ,very familiar	12.7	14
	Heard about them, but not familiar	40.9	45
	No	46.4	51
	Total	100	110
Usage of AI based financial tools	Yes, currently using	10	11
	Tried once, a few times	12.7	14
	Aware but never used	35.5	39

	Not aware at all	41.8	46
	Total	100	110
Types of AI- based financial tools known /used	Budgeting apps	10.9	12
	Robo -advisors	6.4	10
	Financial chatbots	12.7	14
	Investment recommendation apps	11.8	13
	None of the above	58.2	61
	Total	100	110
	Daily	2.7	3
Frequency of using AI- powered financial tools	Weekly	4.5	5
	Monthly	9.1	10
	Rarely	47.3	52
	Never	36.4	40
		100	110
Perceived usefulness of AI- based tools	Very low	16.4	18
	Low	17.3	19
	Moderate	39.1	43
	High	20.9	23
	Very high	6.3	7
	Total	100	110

From the above table, it is concluded that the majority of respondents (46.4%) are unaware of AI-powered financial tools. The majority (58.2%) are unfamiliar with specific AI-powered financial applications. The majority of respondents (47.3%) use such tools infrequently, indicating limited exposure and low adoption of AI in financial learning.

Financial literacy profile of college students

Table 3

	PARTICULARS	PERCENTAGE	FREQUENCY
Confidence in managing personal finances	Very low	15.5	17
	Low	9.1	10
	Moderate	36.4	40
	High	24.5	27
	Very high	14.5	16
	Total	100	110
Budgeting Practice	Yes	16.4	18
	Sometimes	46.4	51
	Rarely	17.2	19
	No	20	22
	Total	100	110
	Bank savings account	43.6	48

Savings investment experience and	Fixed deposit /Recurring	4.5	5
	Stock market/Mutual funds	7.3	8
	Digital wallets	13.7	15
	None	30.9	34
	Total	100	110
Monthly Budget planning	Yes ,strictly	13.6	15
	Sometimes	45.5	50
	Rare	23.6	26
	No	17.3	19
	Total	100	110
Saving pattern	0% (No savings)	27.3	30
	1-10%	32.7	36
	11 - 20%	25.5	28
	21- 30 %	10	11
	Move than 30%	4.5	5
	Total	100	110

From the above table, it is concluded that the majority of respondents (36.4%) reported a moderate level of confidence in managing their personal finances. 46.4% of respondents practice budgeting on occasion. The majority of respondents (43.6%) save in bank savings accounts, while 32.7% save only 1-10% of their income, demonstrating basic financial awareness.

Students’ perception of AI in Financial knowledge and decision making

Table 4

	PARTICULARS	PERCENTAGE	FREQUENCY
Usage of AI based financial tools in understanding personal finance	Very low	16.4	18
	Low	17.3	19
	Moderate	39	43
	High	20.9	23
	Ver high	6.4	7
	Total	100	110
Level of trust in AI powered financial tools	Strongly trust	4.5	5
	Somewhat trust	17.3	19
	Neutral	64.5	71
	Distrust	9.1	10
	Strongly distrust	4.6	5
	Total	100	110
	Much lower before – much higher now	6.4	7
	Slightly lower before – slightly higher now	30.9	34

Perceived financial literacy before and after using AI tools	No difference	21.8	24
	Don't know	40.9	45
	Total	100	110
Influence of AI tools on saving and budgeting habits	Yes, significantly improved	14.5	16
	Somewhat improved	30.1	33
	Not noticeable change	21.8	24
	Not applicable	33.6	37
	Total	100	110
Change in financial decision making after using AI tools	Much better decisions	20	22
	Somewhat better decisions	66.4	73
	Worse decisions	13.6	15
	Total	100	110

From the above table, it is concluded that the majority of respondents (39.1%) found AI-based tools moderately useful. The majority (64.5%) remained neutral on trust in AI-powered financial tools. The majority (40.9%) were unsure about improving financial literacy, while 44.6% believed AI tools improved saving and budgeting practices.

Usage pattern of AI tools for Financial learning and management

Table 5

	PARTICULARS	PERCENTAGE	FREQUENCY
Usage of AI based financial tools	Yes, currently using	10	11
	Tried once, a few times	12.7	14
	Aware but never used	35.5	39
	Not aware at all	41.8	46
	Total	100	110
Types of AI- based financial tools known /used	Budgeting apps	10.9	12
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	Rarely	47.3	52
	Never	36.4	40
		100	110
	Very low	16.4	18

Perceived usefulness of AI- based tools	Low	17.3	19
	Moderate	39.1	43
	High	20.9	23
	Very high	6.3	7
	Total	100	110
Barriers to adopting AI- based financial tools	Lack of awareness	26.2	28
	Lack of trust /Security concerns	27.1	29
	Complexity of use	25.2	27
	No need felt	21.5	26
	Total	100	110

From the above table, it is concluded that the majority of respondents (41.8%) are unaware of AI-powered financial tools. Most respondents (47.3%) use AI tools infrequently, indicating low usage levels. The most significant barrier identified was a lack of trust and security concerns (27.1%), followed by a lack of awareness and the complexity of use.

Findings

The study found that the majority of respondents are young college students aged 18-20 years (44.5%) and female (84.5%), with UG III year students (43.6%) from lower-income families (<₹25,000/month, 40.9%). Awareness and use of AI-powered financial tools are low, with nearly half (46.4%) unaware and unfamiliar (58.2%) with specific tools, and 47.3% using them infrequently. Financial literacy is moderate, with 36.4% feeling confident in managing their finances, 46.4% budgeting on occasion, and 43.6% saving through bank accounts. Students find AI tools moderately useful (39.1%), but 64.5% remain neutral on trust, while 44.6% report improved saving and budgeting habits. Major barriers to adoption include a lack of awareness (41.8%) and trust/security concerns (27.1%), which limit the effectiveness of financial learning and management.

Suggestions

To improve financial literacy among college students, institutions should incorporate AI-powered tools into the curriculum via workshops and hands-on learning experiences while also promoting safe and trustworthy platforms to boost student confidence. Students from low-income families should receive special attention to close knowledge and access gaps, and regular assessments of AI adoption and financial literacy can help guide program design and resource allocation.

Conclusion

The study reveals that college students, particularly those aged 18 to 20 and female, have moderate financial literacy, with many practicing budgeting on occasion and saving through bank accounts. Awareness and adoption of AI-powered financial tools remain low due to a lack of familiarity and trust, though students recognize their moderate utility in improving financial habits. Lack of awareness, security concerns, and limited engagement are key barriers to the effective use of AI for financial learning. These gaps can be bridged by incorporating AI-based tools into financial literacy programs, conducting workshops, and providing safe, accessible platforms—particularly for low-income students. The strategic

use of AI can improve practical financial skills, support informed decision-making, and prepare students for responsible financial management.

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