

# Impact Of Technological Advancement on Investment Decisions & Financial Literacy Among Postgraduate Students In India



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### Abstract:

Nowadays the use of advanced technologies and innovative tools in managing various business operations has tremendously increased. Advanced technologies provide various benefits to sectors or industries. In the case of the finance sector companies prefer to use artificial intelligence along with big data as well as machine learning and data analytics tools to predict future performance of the financial market. In India, the largest population of the country belongs to the young and young adult age group. This research has focused on understanding the impact of advanced technologies and innovative tools on investment decisions as well as the financial literacy of Indian postgraduate students. Authentic sources such as academic literature along with books as well as news articles are the key resources that have been used to gain in-depth knowledge about this research topic. The survey or questionnaire is the primary tool that has been used to collect the opinion of postgraduate students about technological advancement and changing investment behaviour. From the overall analysis, it has been identified that Indian postgraduate students struggling to make investment decisions because of a lack of awareness and knowledge about financial investment. Universities are respective

institutions need to take initiatives to improve practical knowledge about the financial investment of postgraduate students.

**Keywords:** AI investment advisors, financial literacy, Hybrid cloud, financial instruments.

### 1.0 Introduction:

After the pandemic, the use of advanced technologies across all industries has increased. Not only the financial sector but also other industries are focusing on adopting different types of advanced technologies and digital tools to manage their business operations effectively (Machkour & Abriane, 2020). In the case of the financial market, newly developed advanced technologies have created a huge impact on the investment preferences and financial literacy of people, especially postgraduate students in India. Technology enables students to gain knowledge and invest money in different financial instruments. India has the largest youth population. The increasing awareness and knowledge about technological advancement in the financial sector can support the industry to attract more investors in India. This research will focus on studying the impact of technological advancement in the finance sector on the financial literacy and investment decisions of Indian postgraduate students.



### 1.1 Research aim :

Impact of technological advancement on investment decisions and financial literacy among postgraduate students in India.

### 1.2 Research Objectives :

- To understand the level of technological advancement in the finance sector and its awareness among postgraduate students in India.
- To analyze the impact of online trading platforms including AI investment advisors on investment preferences and financial literacy of Indian postgraduate students.
- To understand the effectiveness of current digital literacy programs and financial literacy initiatives to improve knowledge and skills related to financial investment.
- To identify opportunities and challenges in implementing advanced technologies for improving the knowledge level of students and making investment-related decisions.

### 1.3 Research Questions :

- How advanced technology adoption in the finance sector has helped to increase financial literacy among postgraduate students in India?
- How do online trading platforms and different types of AI investment advisors affect investment preferences along with the financial literacy of students who are pursuing postgraduation in India?
- What is the role that current digital literacy programs or initiatives play in improving the knowledge and financial literacy of Indian postgraduate students?
- What are opportunities as well as key challenges that postgraduate students in India can face while implementing adverse technologies to gain knowledge about financial investment and making investment related decisions?

### 1.4 Research Rationale :

Nowadays almost every industry or sector is

focusing on adopting newly developed digital and innovative technologies for managing various business operations. In India investment in financial instruments is increasing continuously (Panda, 2023). Hence it is essential to understand the impact of advanced technologies on the investment behavior of Indian postgraduate students. Apart from that Indian postgraduate students represent the largest demographic part of the nation which will become the future workforce of the country. The study of attitudes and behavior of Indian postgraduate students related to financial investment can support gaining valuable insights for making changes in the existing educational framework. Educational institutions and business organizations can use this information to develop appropriate training programs for improving financial literacy among students.

### 1.5 Research Hypothesis :

**H0:** Technological advancement in the financial sector does not create any impact on the financial literacy and investment preference of Indian postgraduate students.

**H1:** Technological advancement in the financial sector creates an impact on the financial literacy and investment preference of Indian postgraduate students.

### 2.0 Literature Review :

#### 2.1 Introduction :

According to McKinsey.com, (2019), increasing technological advancement has created a huge impact on investment decisions as well as financial literacy or knowledge level among Indian postgraduate students. The adoption of advanced technologies has provided various benefits to the financial sector as well as to the educational sector. After the pandemic, the use of advanced technologies in the educational sector has tremendously increased. Nowadays students are using different online platforms to gain knowledge about financial concepts. Digital platforms also provide a place where investors or



students can invest money to earn more profit. Apart from this, AI and other innovative technologies also provide appropriate suggestions to invest money in the most profitable instruments. Students can understand risks associated with respective investments through AI and other analytics tools. In this literature review, different materials including research journals and news articles will be analysed to gain more knowledge about the research topic.

## 2.2 Discussion :

Currently, the finance industry has been going through transformation changes. Online trading platforms along with AI advisors as well as mobile applications are different forms of digital technologies that investors can use for making decisions related to financial investment. AI algorithm has helped investors to know about the risks associated with respective investment instruments. Hybrid cloud along with blockchain as well as robotic process automation and data analytics are popular technologies that the finance sector has adopted to manage its financial operations (Chahal, 2023). The adoption of these technologies has helped the finance sector to offer more effective investment opportunities to investors. Postgraduate students are generally aware of newly developed technologies. This supports the financial sector in attracting more investors from different categories. For example, Angel along with Zerodha and Upstox are some popular platforms that young Indian investors prefer to use for investment purposes (Jadhav et al., 2022). These platforms use advanced technologies to offer online trading platforms. Students can use these platforms through mobile devices and other digital equipment to invest money in the stock market or other financial instruments. Online trading platforms also provide expert advice and suggestions to investors for making effective investment decisions.

The adoption of Advanced Technologies in the finance sector has created a huge impact on investment related decision-making process

among postgraduate students in India. Technology enables students to know about risks associated with financial instruments which is essential to make a more secure investment. According to research, the development of online trading platforms has helped to increase investment in the equity market (Shah et al., 2019). Apart from that online trading algorithms have also supported the financial sector to reduce human bias and maintain transparency between investors and respective business organizations.

Increasing the use of advanced technologies in the investment sector has created the need of financial literacy among Indian postgraduate students. In the future postgraduate students could become workforce or important asset of the country. The knowledge and skill level of these students can influence finance sector performance. Nowadays postgraduate students prefer to use different digital platforms and study material to gain knowledge about investment opportunities in the market (Aleisa, 2022). However, misinformation or lack of appropriate guidance can create a negative impact on investment related decision-making ability of students in India. Finding authentic or relevant sources to make effective investment decisions is a challenging task for postgraduate students. A number of digital platforms and traditional channels are available in the market which offer investment advice in the market. Postgraduate students need to study all these aspects to effectively make decisions regarding investing money in the financial market.

## 2.2 Literature Gap :

Finding relevant sources and material to gain knowledge about the research topic was a challenging task. Researchers used secondary or unauthenticated sources while conducting the research. This has created a negative impact on the authenticity of the study. This research will focus on understanding the financial literacy level and investment behaviour of Indian postgraduate students.



### 2.3 Conclusion:

In conclusion, existing financial literacy levels and technological advancement could create an impact on the investment behaviour of Indian postgraduate students. Development and adoption of technology in the finance sector have created more scope for investors in the market. It provides digital platforms that investors especially postgraduate students can use to make investment decisions and reduce the risk of losses. Students can also use this platform to improve personal knowledge about financial investment as well as receive expert advice.

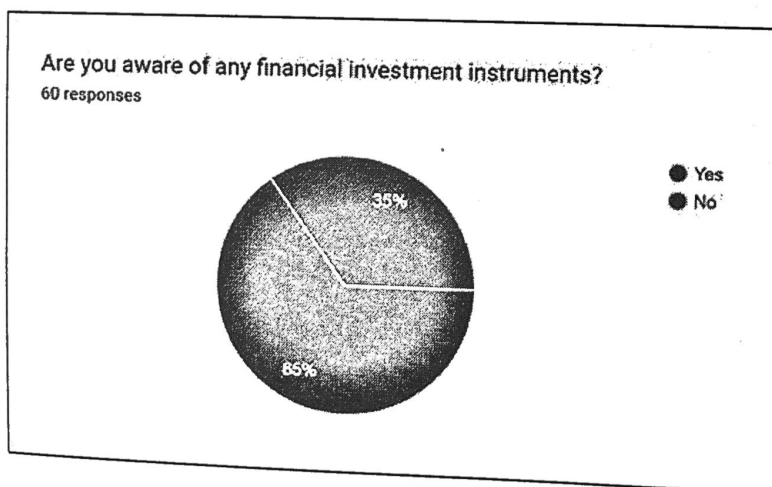
### 3.0 Research Methodology :

This chapter explores strategies that have been used by the research scholar for collecting topic-relevant information from different sources. In order to identify the impact of technological advancement and adoption on financial literacy and investment behaviour of Indian postgraduate students, an appropriate data collection plan has been developed in advance. Positivist research philosophy has been adopted to identify more appropriate solutions to research questions (Ragab & Arisha, 2018). In the beginning

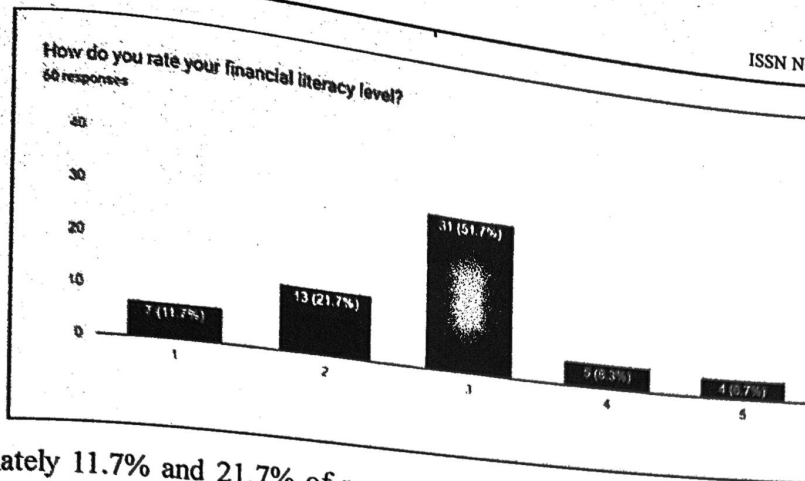
research hypothesis has been developed. A deductive research approach has been used to develop a data collection plan and test the research hypothesis. In order to collect topic-relevant information the survey or questionnaire method has been used. The researcher has studied various factors such as the research aim along with objectives as well as the hypothesis and perception of selected respondents while developing an appropriate questionnaire for the research. Google Forms tool has been used to develop the questionnaire and collect responses from postgraduate students. The questionnaire has been distributed by using social media channels and email tools.

A strategic sampling method has been used to select respondents for this study. Students who pursuing post-graduation courses are the respondents who have been selected for this research. the researcher has considered ethical principles while collecting topic-relevant data from postgraduate students. The sample size of this research is 60. Privacy and transparency have been maintained while collecting data from a selected group of respondents.

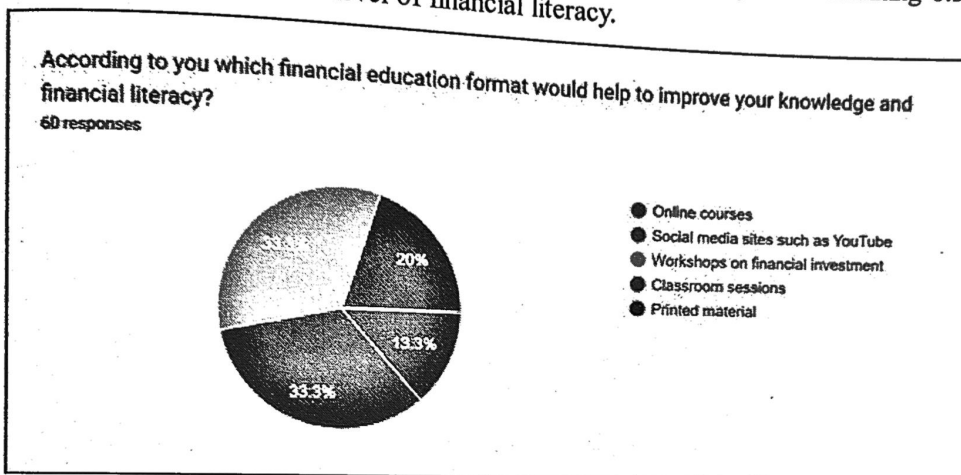
### 4.0 Data Analysis and Interpretation :



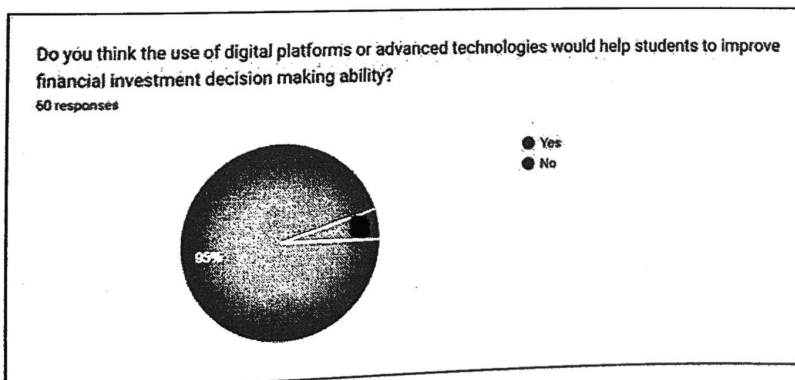
From the above responses, it is found that approximately 65% of postgraduate students have knowledge and awareness about different financial investment instruments.



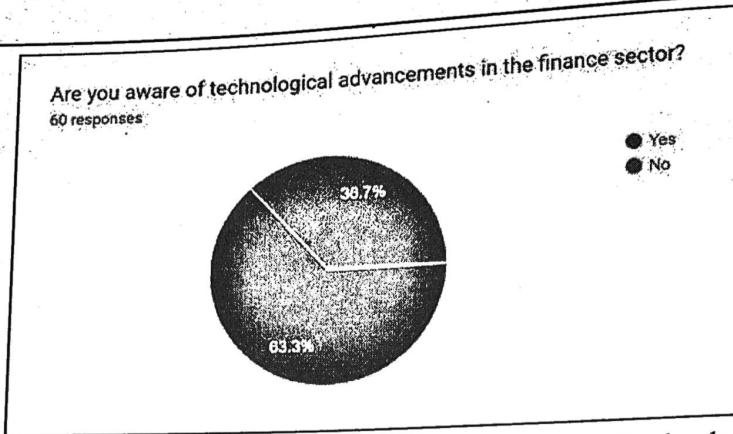
Approximately 11.7% and 21.7% of respondents have a high level of financial literacy. The largest part of respondents have a moderate level of financial literacy. The remaining 8.3% and 6.7% of Respondents have a low level of financial literacy.



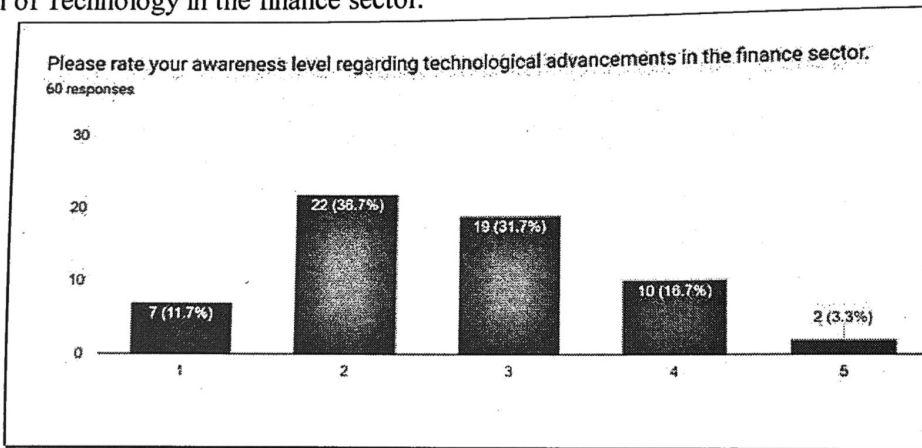
Social media platforms such as YouTube and workshops on financial investment have helped almost 66.6% of respondents to improve their knowledge and financial literacy. The remaining 20% and 13.3% of respondents respectively find classroom sessions and online courses are more beneficial to gain knowledge about financial investment.



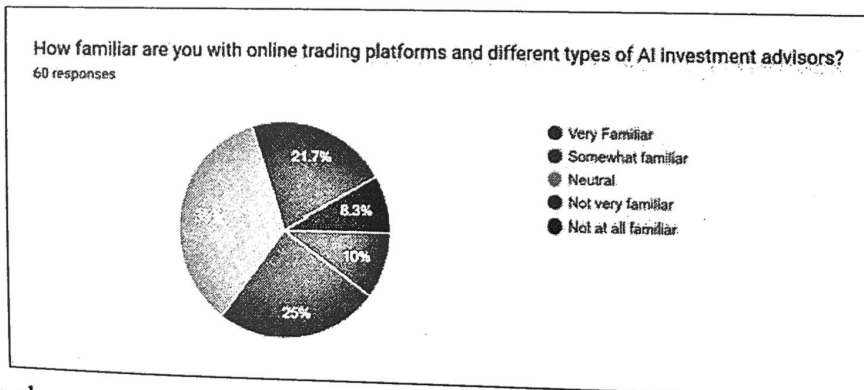
According to 95% of respondents, different digital platforms and innovative technologies have helped them to improve decision-making ability while making investment-related decisions. The remaining respondents do not agree with the statement.



Almost 63.3% of respondents or postgraduate students are aware of technological advancement in the finance sector. The remaining 36.7% of respondents are not aware of the development and adoption of Technology in the finance sector.



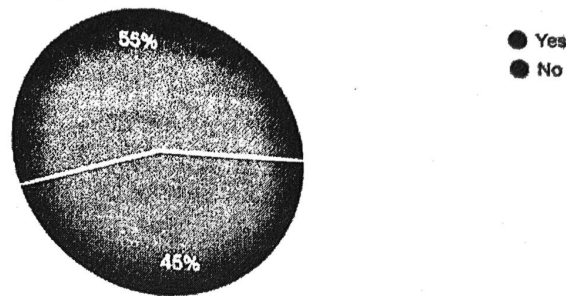
36.7% and 11.7% of respondents have knowledge and awareness regarding technological development and adoption in the finance sector. Approximately 31.7% of respondents have a moderate level of awareness of the same. The remaining 16.7% and 3.3% respectively have a low level of awareness about the technological advancement in the finance sector.



From the above responses, it can be seen that almost 10% of respondents are very familiar with online trading platforms as well as with different types of AI investment advisors. 25% of respondents are somewhat familiar with these platforms. 35% of postgraduate students are neutral on the knowledge and awareness of online trading platforms. The remaining 21.7% and 8.3% of respondents respectively are very familiar with these platforms.

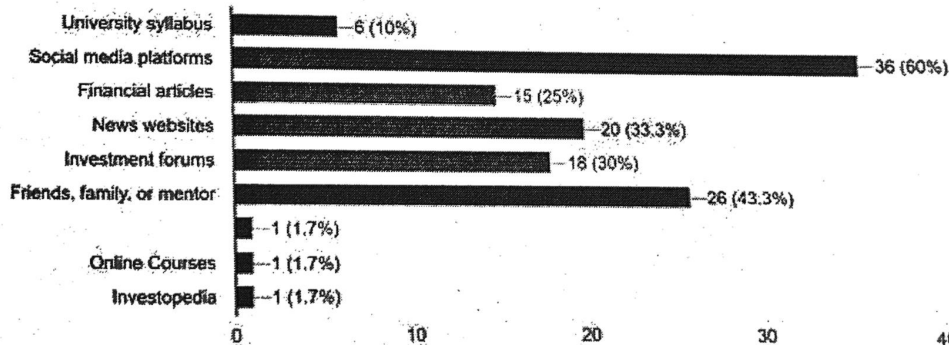


Have you used any online trading platforms for investment purposes?  
60 responses

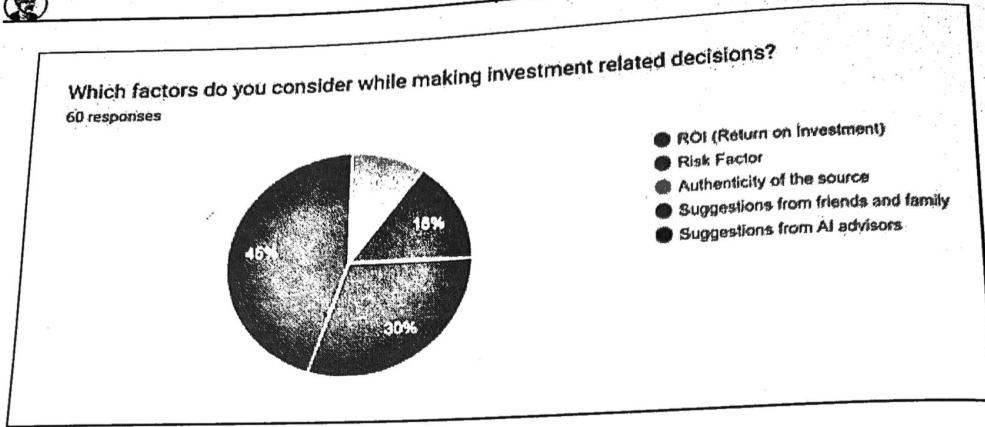


Approximately 45% of respondents have used any online trading platforms to invest money in the financial market or any other purpose. The remaining 55% of postgraduate students did not use any online platform for investment purposes.

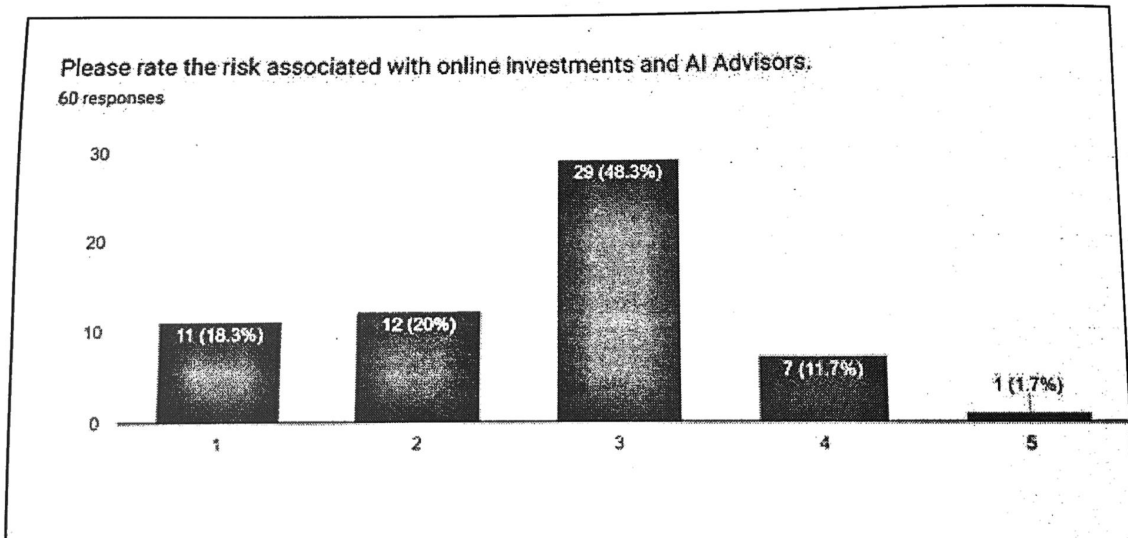
Which sources do you use to collect important information about financial investment?  
60 responses



Social media platforms and advice from friends, family, or mentors are the key sources that almost 60% and 43.3% of respondents respectively consider to collect important information for making investment related decisions. News websites along with investment forums as well as financial articles and university syllabi are the other sources that 33.3%, 30%, 25%, and 10% of respondents consider. Online courses and Investopedia are other sources that students consider to gain knowledge about financial investment.



Risk factor and ROI are the key factors that almost 45% and 30% of respondents respectively consider while making investment related decisions. The remaining 15% and 10% of respondents respectively consider suggestions from friends and family and the authenticity of sources while investing money in different financial instruments.

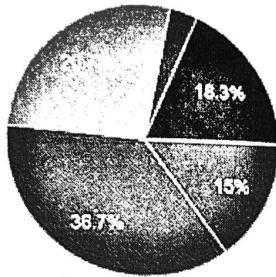


Approximately 48.3% of respondents find moderate risk associated with digital investment as well as AI advisors while investing money in financial instruments. 18.3% and 20% of respondents respectively find the high risk of losses with online investment and AI advisors. The remaining 11.7% and 1.7% of respondents think that the risk associated with digital investment and AI advisors is low.





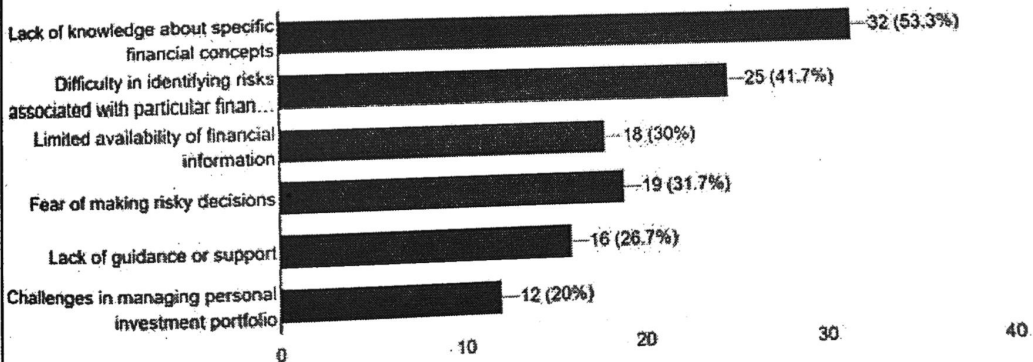
**According to you what opportunities advanced technologies created in financial investment practices?**  
60 responses



- Support in future predictions.
- Real-time data access
- Support to manage a personal investment portfolio.
- Investment diversification option
- Professionals advise to make investment-related decisions.

36.7% of respondents think that real-time data access through advanced technologies can help to make more effective investment decisions. According to 26.7% and 15% of respondents respectively, support for managing a personal investment portfolio and future predictions are the other opportunities that advanced technology could create while making investment-related decisions. Apart from that 18.3% of respondents find advanced technology is more beneficial to gain professional advice. The remaining respondents have selected the investment diversification option.

**What challenges that you face while making decisions related to financial investment and improving financial literacy?**  
60 responses



Lack of knowledge about financial concepts and investment opportunities has created challenges in front of 53.3% of respondents while making investment decisions. Almost 41.7% of total respondents find difficulties in identifying risks associated with different financial instruments. Limited availability and accessibility of financial information and guidance or support have created challenges in front of postgraduate students while enhancing financial literacy. According to 31.7% and 20% of respondents, fear of making risky decisions and challenges in managing personal investment portfolios are the key challenges while investing capital in the financial market.



#### 4.0 Findings :

From the above analysis, it is found that in India the awareness of financial investment instruments is at medium level among postgraduate students. The financial literacy level among postgraduate students in India is low or at medium level. Social media platforms play a significant role in improving the financial literacy of postgraduate students. Generally, student prefers to use YouTube social media platforms to improve their knowledge and skills regarding financial literacy. On the YouTube platform, various social media influences who have knowledge and expertise in financial investment provide informative content (Kuchciak & Wiktorowicz, 2021). Due to increasing accessibility and awareness of Internet technology along with mobile devices students prefer to use YouTube platforms for improving their knowledge and skills level. Attending workshops on financial investment can also help to improve financial literacy among postgraduate students. Online courses and classroom sessions are the other tools that any individual can use to improve personal knowledge and skills regarding financial investment (Kasman et al., 2018). The use of digital platforms such as mobile applications or online forums has helped postgraduate students to easily invest capital in the financial market.

Just like other sectors financial sector has also adopted newly developed advanced technologies for various purposes. It enables the financial sector to access a large investor base. Data protection along with analysis as well as expert advice offerings and easy accessibility are the other benefits of advanced technologies for the financial market. The use of Internet technology and social media platforms has helped to improve awareness about technological advancement and adoption in the finance sector (Yao et al., 2018). However, postgraduate students are not really

aware or familiar with online trading platforms and AI investment advisers. Lack of knowledge and experience about the financial investment program could be the reason behind this. Online trading platforms provide a place where people from remote locations can easily invest money in different financial instruments. Postgraduate students who have knowledge and awareness about technological advancement in the finance sector prefer to use these online trading platforms for investment purposes. Generally, students use social media platforms and suggestions from friends and family members as well as news websites to collect information about respective financial instruments. This strategy has helped post-graduate students to increase their financial literacy and awareness as well as make more informed investment decisions. Investment forums and articles on the topic have also helped to improve student knowledge in the selected topic area. However, the use of unauthenticated sources can create a negative impact on the effectiveness of decisions that are taken by Indian postgraduate students while investing money in financial instruments.

Currently, students consider risk factors and return on investment to make more informed investment decisions. The lack of experience and knowledge about the effectiveness of AI advisors could create an impact on the investment decisions of postgraduate students. Students consider suggestions of AI advisers along with other factors while making investment related decisions. Advanced technologies provide real-time insight into the financial market as well as provide support to predicting future performance and professional advice to make effective decisions (Sarker, 2021). These opportunities have created more scope for advanced technologies in the finance sector. However, a lack of confidence and knowledge as well as limited capital and information has created various challenges in front of postgraduate students while making investment decisions.



## 5.0 Conclusion and Recommendations:

### 5.1 Conclusion:

In conclusion, increasing awareness and financial literacy can help to improve investment in the Indian financial market. Indian postgraduate students are the future of the nation. Social media platforms and digital medium plays a significant role in improving the knowledge and skills of postgraduate students in India. Easy accessibility and awareness of Internet technology promote digital literacy among Indian postgraduate students. Big data along with cloud computing as well as artificial intelligence and machine learning are the popular advanced technologies that the finance sector has adopted for improving the effectiveness of its operations. In India, various brokerage firms have used advanced technologies to develop online trading platforms where people can buy or sell financial instruments. Indian students can use these platforms to successfully invest money in the financial market. The opinions of friends and family also influence the financial investment decisions of postgraduate students in India. Brokerage firms and other financial companies have used artificial intelligence technology to offer investment advice to users.

Students can use AI advisors to successfully invest capital in the financial market. This platform or tool has helped students to predict future performance as well as risks associated with the respective financial instruments. Indian investors especially postgraduate students consider risk and return on investment factors while making investment-related decisions. Advanced Technologies and innovative tools provide various benefits as well as create challenges in front of investors. Finding appropriate resources to make effective investment decisions is a challenging task for postgraduate students in India. Lack of awareness and knowledge about financial instruments also

created a negative impact on the investment behaviour of postgraduate students in India.

### 5.2 Recommendations:

- Popular Indian business organizations need to collaboratively work with universities or educational institutions to organize effective financial literacy programs for postgraduate students. This strategy can help financial institutions to attract more investors in the future.
- College or universities in India needs to organize workshops on financial investment for developing practical skills of postgraduate students.
- Including financial investment programs in the university module can help to increase awareness about financial investment among students.
- Students should take support from experts or mentors before making investment-related decisions.
- Investors should check the authenticity and reliability of respective sources before using that source for making investment decisions.

### 6.0 References :

- Aleisa, N. A. A. (2022). Graduate student's use of social media as a learning space. Cogent Education, 9(1), 2010486.
- Chahal, S. (2023). Navigating Financial Evolution: Business process optimization and digital transformation in the finance sector. International Journal of Finance, 8(5), 67-81.
- Jadhav, S., Raj, S., Borate, A., Gadhiya, K., & Khadse, K. (2022). Business Resilience: Study of Management Student's Perception about Online Trading Platform. Quest Journal of Management, 13(1), 26-35.



- Kasman, M., Heuberger, B., & Hammond, R. A. (2018). A review of large scale youth financial literacy education policies and programs. The Brookings Institution.
- Kuchciak, I., & Wiktorowicz, J. (2021). Empowering financial education by banks—social media as a modern channel. *Journal of Risk and Financial Management*, 14(3), 118.
- Machkour, B., & Abriane, A. (2020). Industry 4.0 and its Implications for the Financial Sector. *Procedia Computer Science*, 177, 496-502.
- McKinsey.com, (2019) McKinsey [Online] Digital India: Technology to transform a connected nation Available at: < <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/digital-india-technology-to-transform-a-connected-nation> > [Accessed on 05 February 2024].
- Panda, P. (2023). Innovative Financial Instruments and Investors' Interest in Indian Securities Markets. *Asia-Pacific Financial Markets*, 30(1), 1-12.
- Ragab, M. A., & Arisha, A. (2018). *Research methodology in business: A starter's guide*.
- Sarker, I. H. (2021). Data science and analytics: an overview from data-driven smart computing, decision-making and applications perspective. *SN Computer Science*, 2(5), 377.
- Shah, D., Isah, H., & Zulkernine, F. (2019). Stock market analysis: A review and taxonomy of prediction techniques. *International Journal of Financial Studies*, 7(2), 26.
- Yao, M., Di, H., Zheng, X., & Xu, X. (2018). Impact of payment technology innovations on the traditional financial industry: A focus on China. *Technological Forecasting and Social Change*, 135, 199-207.

