City as Lab: Research Project (Phase 2)

Money Matters

The need of financial education at school level

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1. Abstract

Through our research paper titled 'Money Matters', we intended to find out whether **the schools in the Kothrud region of Pune preparing students of age 10-16 years to deal with the practical aspects of finance**. As financial literacy has multiple aspects, we considered the financial understanding with regards to Banking transactions and Investments in equity markets only. Even the students excelling in mathematics are not necessarily able to handle money properly or they don't know how to save and grow money for their future perspectives. So to know the real situation we conducted research on this topic with hypothesis that **75% of students aged 10-16 in Kothrud region of Pune lack knowledge in basics of investments and banking.**

For data collection we used methods like interviews, survey, research papers and data from authentic websites. As our primary research, we conducted talked with the few students (around 20) of our school from grade 5 to grade 10 which gave us insight to design our survey questionnaire more accurately. We circulated the google survey among **300 students** of high school, nearby schools in Kothrud area. We visited few websites and read research papers to know more before proceeding. After analyzing **the data, we found that our hypothesis is proven 'true'**. We found that 70% of the students are not literate in the field of finance and banking. Interesting fact is that students learn more about finance from home and not from school. Most of the high school students showed willingness to learn such topics in the school . They feel that money really matters in life.

(248 Words)

2. Introduction

India's economy has grown significantly during the past ten years as a result of several causes. India has experienced growing inflation over the last few years, and this trend will continue. In contrast to other nations, India is predicted by the IMF to have inflation in the range of 5.5% to 5.7% in the fiscal year 2023. A nation's economic growth is influenced by a variety of variables. As an illustration, approximately $15 trillion in consumer expenditure accounts for 70% of all economic activity in the United States. However, just 30% of India's GDP is driven by consumer expenditure. To catch up to more developed countries like the United States, India must raise these figures. Future endeavors require investment. Businesses and ventures can only begin when today's kids are financially prudent. India has a diverse culture; in certain areas, like Gujrat, children are taught financial literacy from their households at an early age and get experience with money concerns from their surroundings. As you can see, the majority of Indian businesspeople and political figures hail from Gujrat, including Pankaj Patel, Mukesh Ambani, Gautam Adani, and Narendra Modi, who served as prime minister of India from 2014 to 2019 and again from 2019 to 2023 (Currently in term). Gujarat now has a financial literacy rate of about 83%, compared to 15–25% in other states. This is so because young people in Gujarat have practical experience, whereas they do not in other states. Other states can undoubtedly offer theoretical knowledge even if they can't offer real experience. The inclusion of financial education classes in the curriculum will ensure that all students understand the fundamentals of money at a young age. After all, India's ability to develop economically depends on it. **"Academic qualifications are important and so is financial education. They're both important and schools are forgetting one of them." by Robert Kiyosaki** is one of my favorite quotes because I can relate with it. The schools are undoubtedly ignoring financial education, which is disappointing. Even former Federal Reserve chair Alan Greenspan claims that today's youth's biggest issue is a lack of financial literacy. It's crucial to teach the habit of spending, saving, and investing money at the appropriate moment. Some of the subjects that can make a significant difference can easily be included in the core curriculum. Pune is being taken into consideration as a sample group, and we'd like to do study to find out how financial literacy is currently faring and whether it can be raised through academic instruction.

a) Research question

Are the schools in Kothrud region of Pune preparing students of age 10-16 years to deal with the practical aspects of finance with regard to:

- Banking transactions (EMI, Loans)
- Investments in Equity markets.

b) 2 implications

With our research we want to highlight the importance of the financial literacy. It should start at very young age. Schools should include the topics which are more relevant to outside world. Parents should also involve their wards in simple day to day life matters related to finance. If 30% students have clear understanding of finance, then why not remaining 70 %?

- Schools in the Pune area will be made aware of the value of financial literacy early on.
- This research may be utilized in the future to mainstream financial education for high school students.

d) Hypothesis

Nearly 75% of students aged 10-16 in Kothrud region of Pune lack knowledge in fundamentals of investments and banking.

e) Rationale

Malhar Gandhe:

Day before yesterday I asked my friend whether he knew about the capital gains tax and I was surprised that he did not even care what it was. The young generation wants to become rich and wealthy but they would not. This is because understanding "taxes" is as necessary as to make profit in a business. This is what students of the age group 10-16 are going through.

Narayan Murthy said that "the plane is going to take you to your destination whether you travel by business class or economy class." I am quite surprised that students of my age do not see the value in what they are getting versus the price they are paying. This is the reason; I selected this topic for the research. Let us find out the facts rather than building our own assumptions.

Ayush Lodha:

In 2021, when I saw one of my 13-year-old friends investing in the stock market, I realized that I was nowhere in the world of finance. That day, I understood one of my biggest faults, that I have never thought of financial matters around me nor haven't learnt anything in the school about it. I have no idea how my parents handle their finances. After a year of observation, I realized that there are many such students, ignorant about money matters. At the same time there are my friends who get attracted towards ‘Sales’ and ‘Discounts’ and others talk about ‘mutual funds’ and ‘shares’. With this background I asked myself: **Is it really important to be financial literate?** This quest led me to choose this topic for research.

Importance of this topic for the city:

1. Pune is becoming a smart city, tomorrow’s financial hub. Don't you think a smart city needs smart students, who are well versed with financial matters?
2. Having financial literacy will help people of Pune to know about managing loans and other liabilities.
3. People will understand the purpose of the tax system and act accordingly.
4. Students who are tomorrow’s citizens will get motivated to start businesses and big ventures in the city.
5. It will create more job requirements which will in turn generate more employment.
6. People will slowly start getting a long term perspective which is beneficial for Pune. It will attract investors and businessmen from around the world to Pune.
7. All this would lead to the development of Pune at a relatively faster rate.

3. Methodology

For this research the most appropriate data collection strategy we will be implementing:

a) Surveys:

The surveys will help us to understand the financial literacy (status)among students and help us to prove our hypothesis. We have made 3 categories to conduct surveys: students of class 5-7 and students of class 8-10.

Here are the links of the survey questions

i. Survey for grade 5-7:

https://forms.gle/GSqvvhAk2NCCXrH57

We received 165 responses from schools in Kothrud including our school.

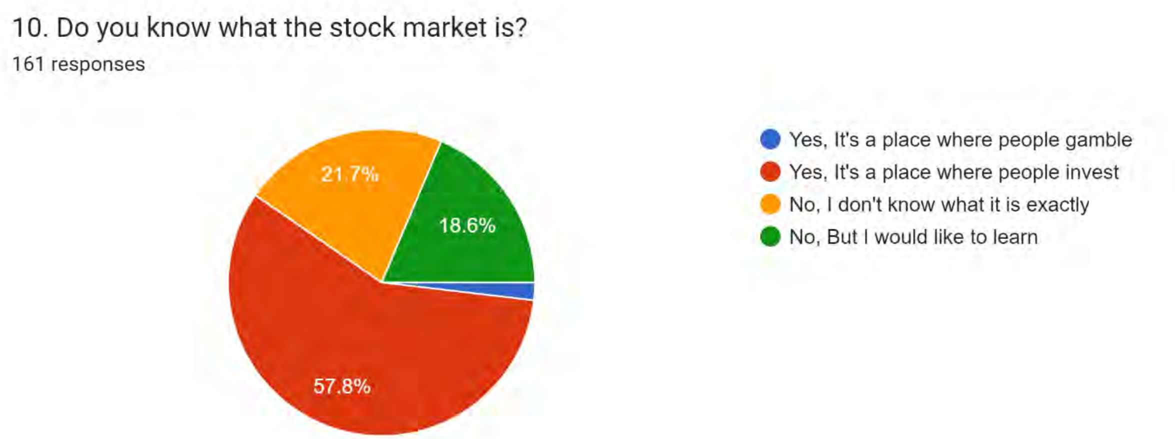
Summary: In a nutshell, kids between the ages of 10 and 13 need to learn about money. Our idea was supported by the survey's results, which were exactly what we had hoped for.

Today's parents believe that exposing their kids to finance might be quite risky. They have created a false idea that trading in stocks, investing in the stock market, and investing in derivative markets are all highly dangerous and may result in massive financial losses. It's also true that people nowadays who are looking for money often lose it when investing in the stock market, which leads to tragic incidents that you may be familiar of.

To prevent this, we must make sure that teenage individuals receive adequate financial education so that by the time they are in their 20s, they are financially capable and self-sufficient.

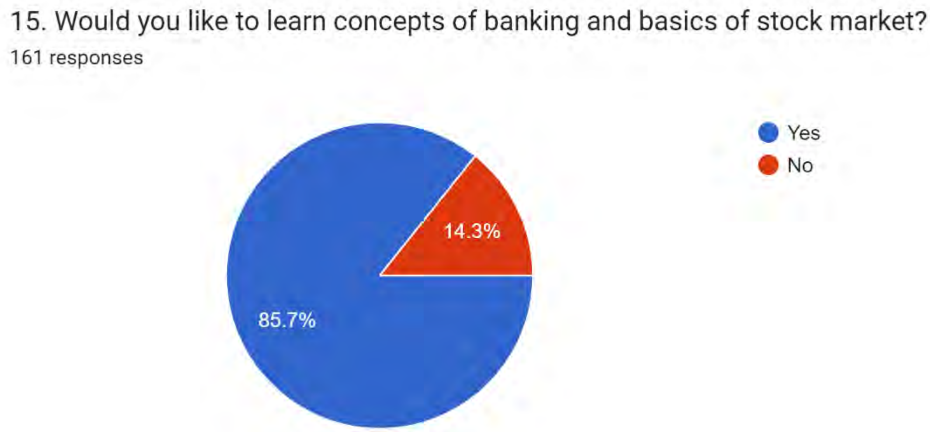
The importance of finance is comparable to that of math, science, and history. To start, one of the measures we can take is to organize workshops, seminars, or even webinars on personal finance. Oure survey says that nearly 30% of the students of age group 10-13 are unaware of what assets actually are.

- Similarly, a huge no. of students actually doesn't know what the stock market is!
- Nearly 43% of students are unaware of the stock market.

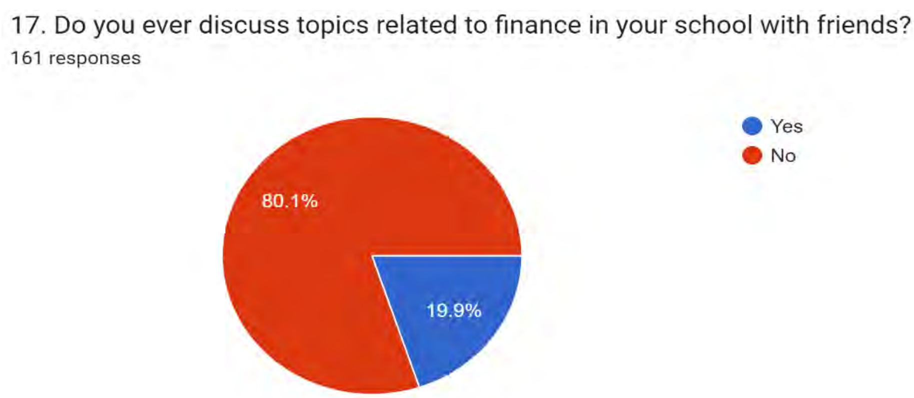


- The misconception of investing in the stock market is risky is a huge myth among the teens.

- But besides all of this **many of the students would like to learn concepts of banking** in school. Nearly 85% of them agree to this question.



- We found that among the students of age 10-13, do not discuss about topics related to finance in the school. That shows the school children are far away from outside world where they are going to enter after few years.

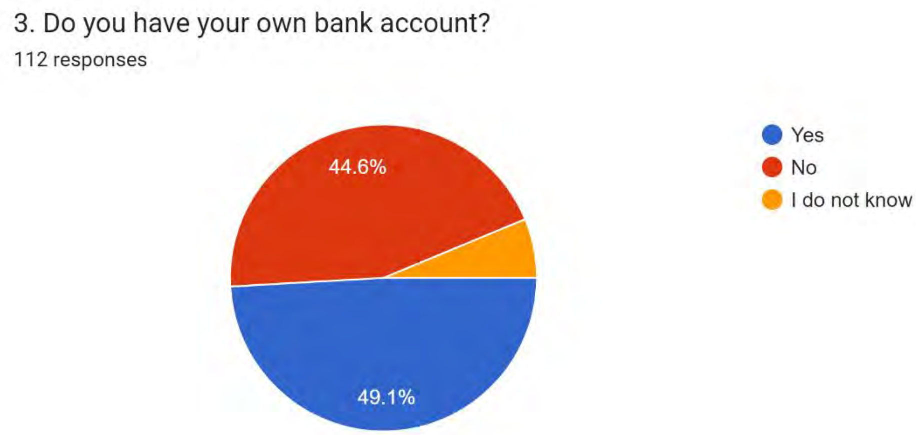


ii. Survey for grade 8-10

Survey link for std 8 to std 10 students https://forms.gle/FNWYzQnYEH3JcB4N7

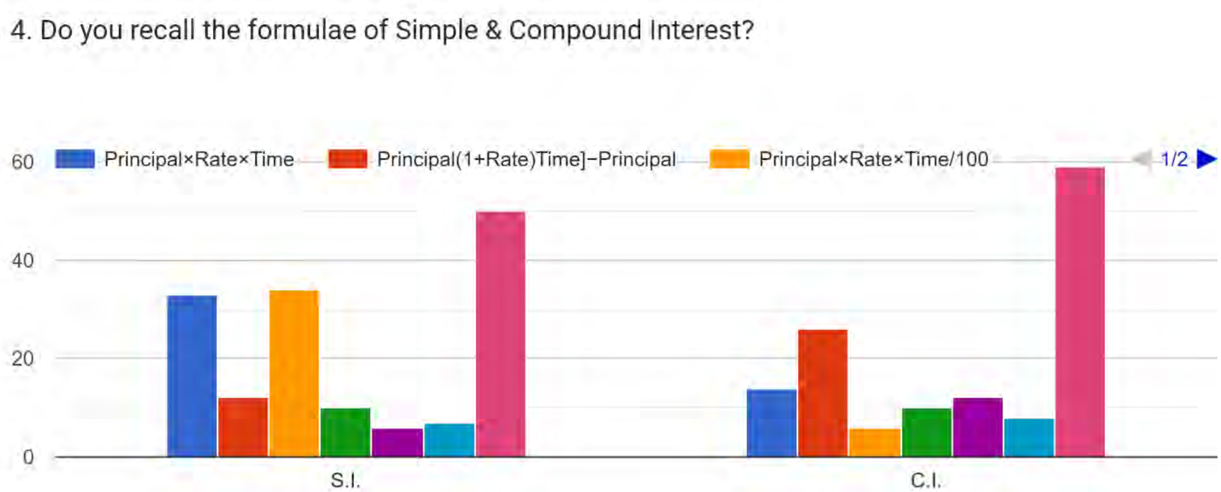
Around 120 students participated in the survey and we received useful responses to carry forward our research..

Summary: Findings of this survey (age group 13-16) were similar to the survey of age group 10-13 . Students of grade 8 to 10 are also unaware of many financial terms and products. Nearly half of the students in this age group do not have their own bank accounts. And hence the day to day bank proceedings.



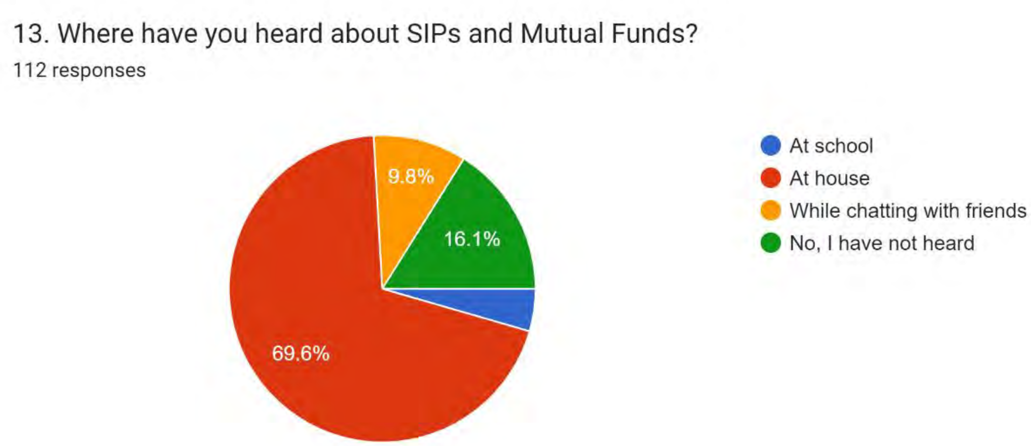
- It was really shocking for us that around 45% of the students don't know how to calculate simple or compound interest.

  (The pink bar graph represents the no. of students who do not know these formulas. S.I. = Simple interest and C.I. = compound interest.)

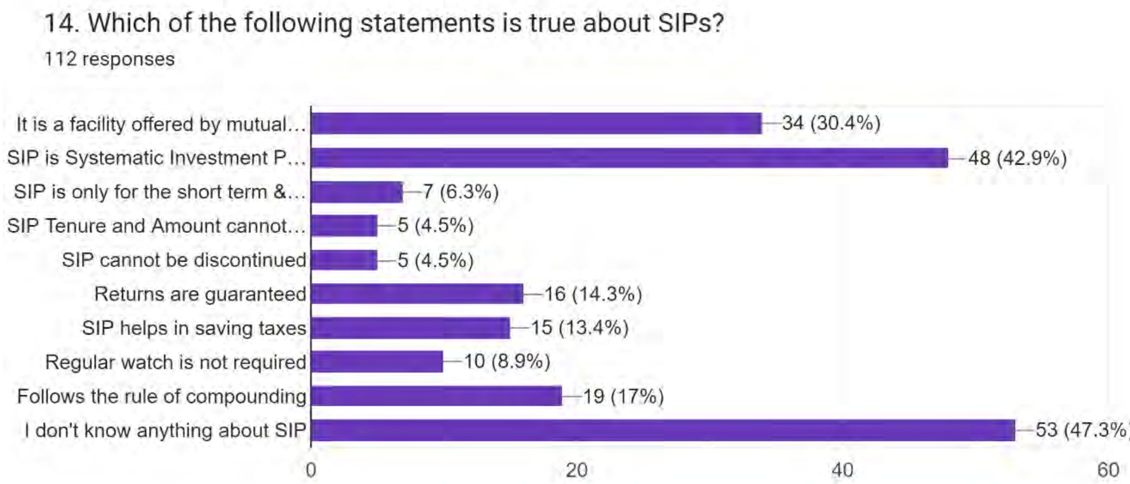


- Many students believe the myth that investing or trading in the stock market is gambling which actually is not, gambling is something you do at casinos (the games played at casinos are now no more sort of gambling, games such as black jack involves math as well).

- Many students hear about financial equity products such as SIP at home rather than what is known as the education heaven; the school.



- Nearly half of the total students don't know what are SIP's.

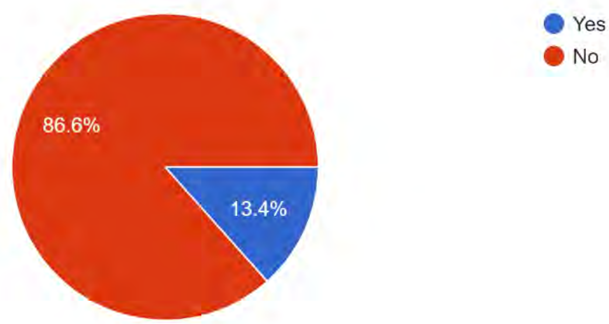


- When it comes to financial education of students, the school plays a minimal role. Many believe that the school does not encourage them to learn about finances. And as a matter of fact they do not.

- One more proof where the school plays a very nominal role in providing financial education to the students.

17. Does your school include 'financial literacy' in your extra curricular curriculum

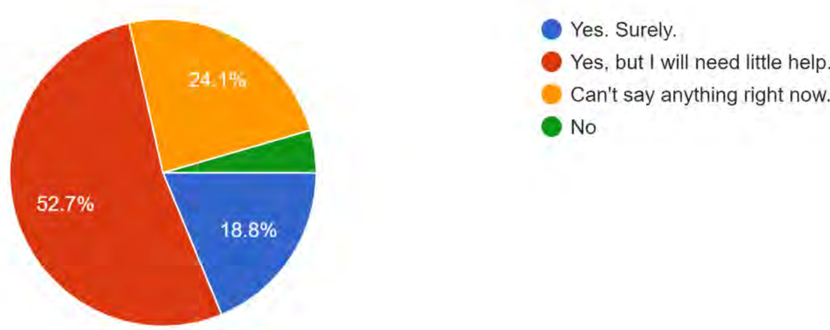
112 responses



- After everything, what is the application of attaining financial education and being literate in finance? Many a times students bear the heavy weight of students' loans which make them unable to start new ventures and take great leaps into their bright future.
  When students move to other places, they need to manage their finances with the studies, financial literacy enables them to achieve this very easily.
  The survey depicts that only about 19% of them think that they are surely ready to handle this situation.

20. You will be going to college soon, some of you may stay away from parents, do you think you are equipped with enough financial understanding to handle money on your own?

112 responses



b) Expert interviews:

Getting a professional viewpoint for this kind of topic is very crucial. We identified the following personalities for the interview.

1. **Gurunath Bhide (Chartered Accountant)**
2. **Pradnya Kale (Professor of economics and accountancy at BMCC college)**

(Questions of interview are given in this google doc.) https://docs.google.com/document/d/1GOH_TJTM5c4Rtq0soNq0gDYoe9ncwb17Abo0vnDPNwM/edit?usp=sharing

1. Gurunath Bhide (Chartered Accountant)

His view on the interview:

He thinks that financial education is very necessary at high school level. He adds that Financial education will help students to manage their financial needs and financial resources at personal level. It will teach them economics too as financial education is part of it.

He also commented that Revolution starts with a person and not nation. So it will help in the nation building too. He thinks when financial education is taught in school it will help the nation achieve greater things. As him being a chartered accountant, his interest in this field started at a fairly young age. He started to learn about finance in his primary school days as he was asked to buy his own stuff all the times. So his wrong purchases, wrong use of money, all taught him a lot of things.

After all these things, what would he do for the students to attain financial education at a young age you ask? He would ask parents to send their children to real jobs during vacations. A simple job of waiter or salesman in cloth shop or grocery shop will teach much more than books and courses. As a matter of fact, the world of finance has a distinct difference between theory and practicality. He thinks that the child will be benefited from these activities and programs. Each region has its own economical situations; this will incline them to learn few things outside the domain of school learning. To add more he said above practical job in general store or supermarket would be the best option to learn finance, there is not anything like theoretical in finance. Theory is lot of information but it is not knowledge. Just like swimming. He believes strongly in doing things rather than just learning.

2. Pradnya Kale (Professor of economics and accountancy at BMCC college)
Her view on the interview.

She thinks that it is very important after 8thgrade to learn economics and finance, she believes it creates an awareness of the economic condition of the nation and family and maturity among the students which would make them responsible for financial transaction.

She thinks that introducing finance is schools will be beneficial for the students in their day to day life. For example, making proper financial transaction, balancing their needs and wants. She thinks this would give them early opportunities regarding finance and economics, a better understanding of how the world works in financial matters.

Just as Chartered accountant Gurunath Bhide she started learning about this topic in her 7th grade, she used to deposit checks into the banks and also carry other basic financial transactions. She also believes in practicality rather than just learning finance theoretically.

As a professor at BMCC college a renowned college in Pune, she thinks the age 12-13 is the perfect age to introduce a subject like finance in schools. Similarly, if it were in her hands she would make finance a compulsory subject in the syllabus just like math or science. She would introduce basic knowledge of finance and economics and not only accounting, management and communication.

Providing this sort of education to the students would definitely bring a favorable impact, awareness and more understanding of this topic is what she commented. Just like him (CA Gurunath Bhide) she believes in practicality, there is a significant difference in tax rate change, amending acts, education and economic linkage, internship program which is not yet taught in schools. This kind of education should be given more importance in this world is what her closing statement was.

c) Authentic websites and Data from official portals

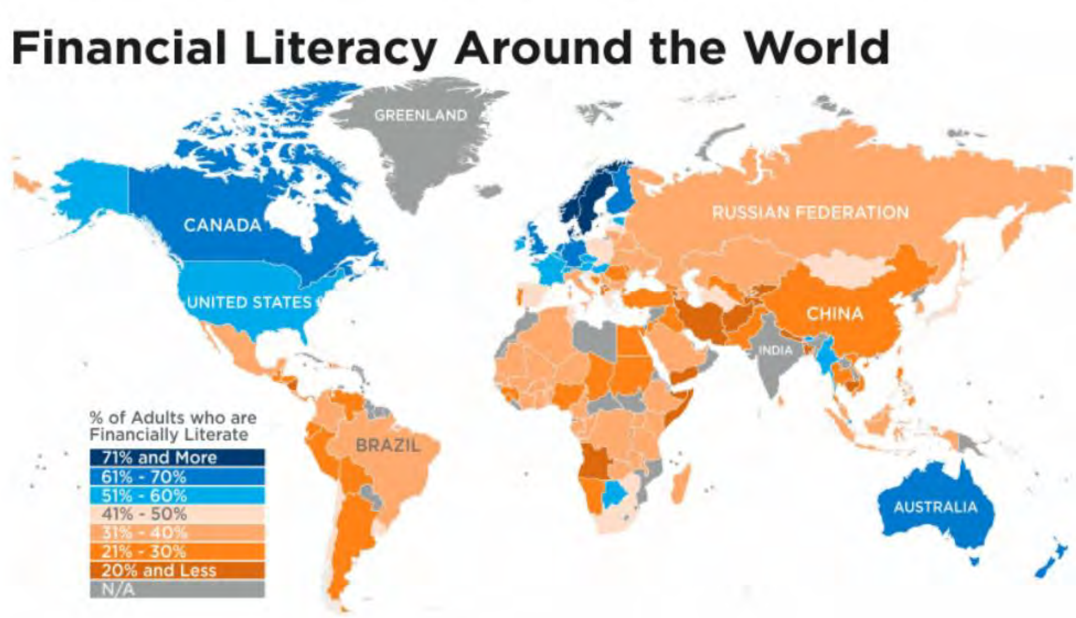
As the internet has a vast collection of data it will provide us with a lot of information. We will check some of the authentic websites and data banks whenever needed.

- **Abroad**:

The situation in the world with respect to finance and related topics is not too good.

The world today has many economics and financial crashes, like the crash of 2008 (Lehman brother) saw the worst downfall of derivative products in the financial markets. The crash was a consequence of huge lending of money to the people and mixing of credit rated bonds.

Financial Literacy around the world.



Source:blogs.illinois.edu

- It is globally recognized that financial literacy and financial inclusion, along with a robust financial consumer protection framework, are vital to the empowerment of individuals and can contribute to the overall stability of the financial system.

- It is therefore valuable for policymakers to have information about the levels of financial inclusion of consumers alongside a measure of their financial literacy.

- Financial inclusion is a two-sided process, requiring the provision of appropriate financial products on the supply side and awareness of those products on the demand side at the point of consumers making decisions.
- Financially literate people can make informed financial choices regarding saving, investing, borrowing, and more. Without an understanding of basic financial concepts, people are not well equipped to make decisions related to financial management.
- This is the view expressed by Leora Klapper, Annamaria Lusardi, and Peter van Oudheusden in their report on Financial Literacy Around the World. Their report measured financial literacy using questions assessing basic knowledge of four

fundamental concepts in financial decision-making: knowledge of interest rates, interest compounding, inflation, and risk diversification.

Source: blogs.illinois.edu

- **Domestic**:

  Today India's financial literacy is compared to nothing, we might be the worst in terms of financial education provided by the India school.

Table 1: State-wise level of Financial Literacy in India (2015)

Name of the State	General Literacy (in Percentage)	Financial Literacy (in Percentage)
Andhra Pradesh	60	23
Arunachal Pradesh	55	10
Assam	61	20
Bihar	50	8
Chhattisgarh	60	4
Goa	80	50
Gujarat	68	83
Harayana	65	21
Himachal Pradesh	73	16
Jharkhand	56	15
Karnataka	67	25
Kerala	84	36
Madhya Pradesh	59	23
Maharashtra	73	17
Manipur	69	36
Meghalaya	60	24
Mizoram	77	6
Nagaland	68	8
Odisha	64	9
Punjab	67	13
Rajasthan	56	20
Sikkim	73	8
Tamil Nadu	72	22
Tripura	67	21
Uttar Pradesh	57	10
Uttarakhand	68	23
West Bengal	67	21

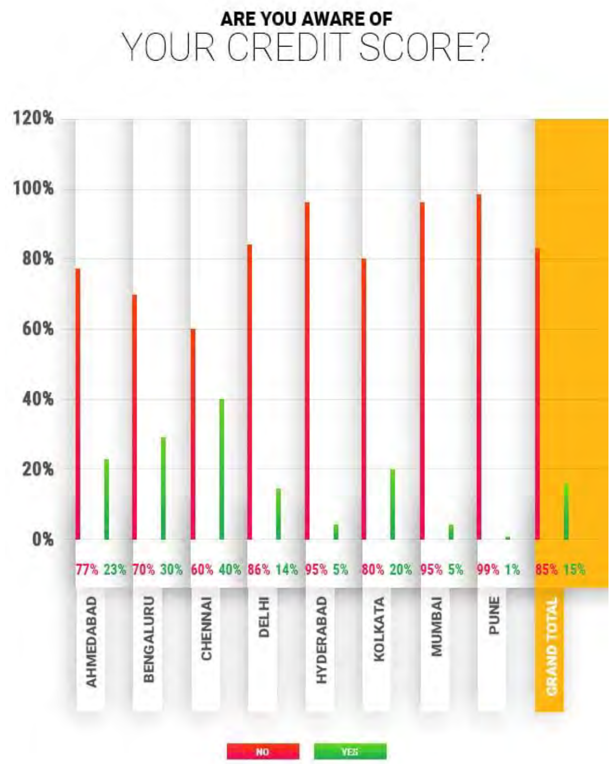
Source: Data Compiled from the National Centre for Financial Education Report, 2015

The chart besides depict that Maharashtra has only about 17% financial literacy.

Whereas Gujrat has about 83%, it is weird that that their general literacy is less than their financial literacy.

In Gujrat Students aged 10-16 are given practical knowledge rather than theoretical.

I have observed that most of the "*Marwari*" shopkeepers keep their sons in charge in their shops. This gives the children the opportunities to be more comfortable dealing with the real world.



The given graph depicts the percentage of people in different cities who know their credit score. This definitely reflects on the financial literacy of these major cities.

This chart even has Pune in the list, but not for good. It has the least number of people who know their credit score.

Pune definitely needs to improve on this aspect.

99% citizens of Pune are unaware of their own credit score.

A financial quiz conducted by streak says that only 16.7% of youths are financially literate in India as only these students got passing scores.

We talk more about how to earn money, but we never talk about how to manage it. We never realize the importance of saving for emergency funds, investment in early age, retirement planning, etc. That leads us in making financial wrong decisions in our life when we finally start to earn.

For instance, from the first salary, it is important to start an investment rather than buying an iPhone. Buying an iPhone is necessary only when you are earning money. It becomes a liability when you just have to bear maintaining expenses.

For maintaining our social status, we buy liabilities instead of assets. There are two aspects of seeing things differently. For instance, when you buy a car, you can either use it whenever you need and when you don't need it, your car will be parked in the house taking up a significant space while depreciating.

There are various misconceptions regarding investment that we strongly believe like it is a gambling, it requires huge investment and deep knowledge, investing means only stock markets, and the list can go on. These investment myths are an outcome of financial illiteracy acting as a hinder to your financial stability.

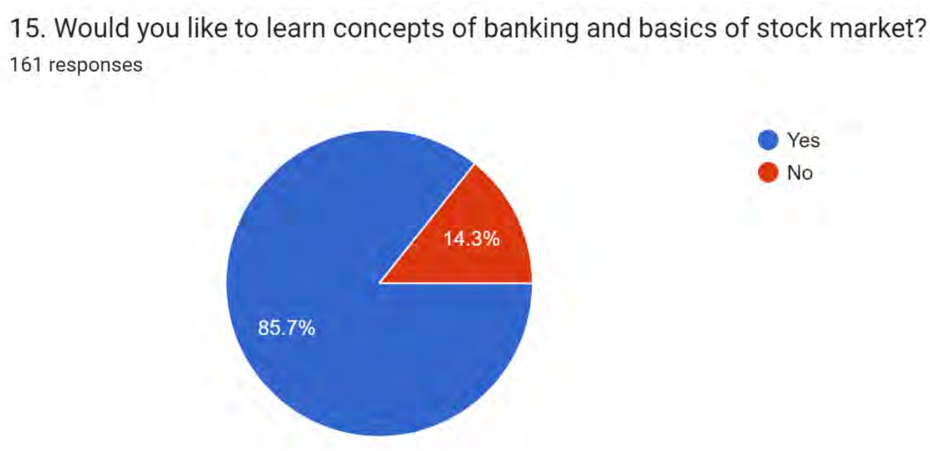
4. Findings

a) Data summary

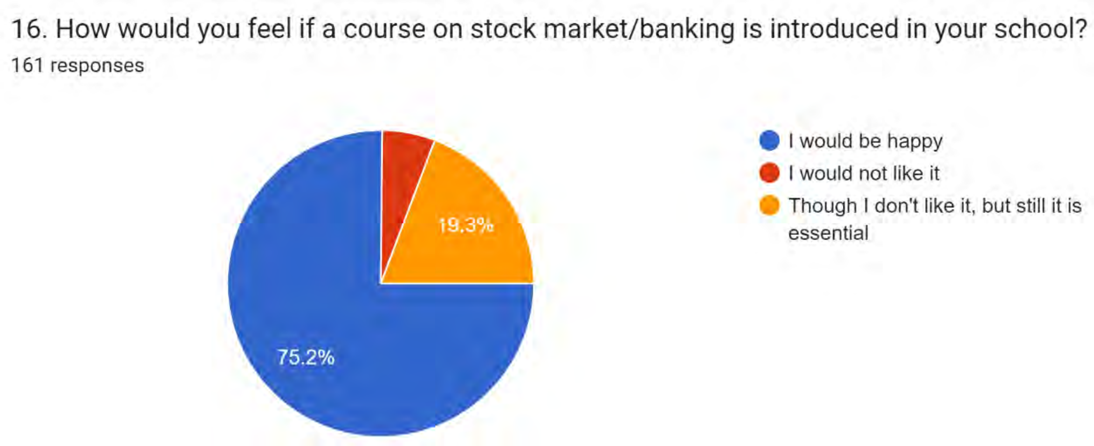
i. Nearly 40% of the students in the age group 10-13 don't know what the stock market is!
ii. More than 60% of the students in the age group 10-13 don't have their own bank accounts.
iii. Almost 30% of the students don't know what assets are and about 51% don't what liabilities are.
iv. About 80% of the students of his age group (10-13) think that investments in the stock market is risky.
v. 86% of the students of the age group (14-16) say that their schools do not include financial literacy in their school.
vi. Most of the students in this age group are unaware of simple and compound interest.

b) Major Findings

i. We found out by surveying that most of the students though are illiterate in finance still want to know more about it.
ii. More than 85% of students would like to learn about the concepts of banking.

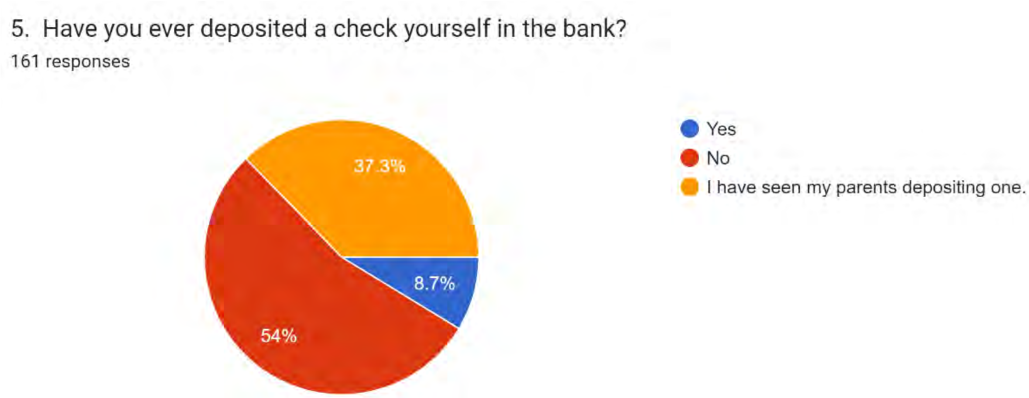


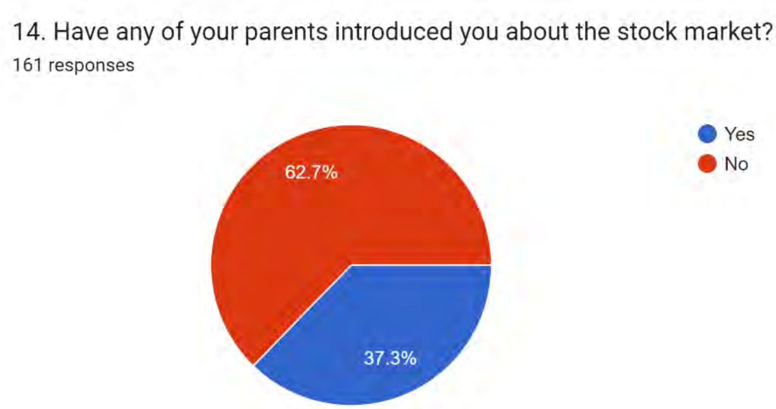
iii. Most of them would be happy about the fact of introducing courses or periods on stock market.
Nearly 20% would not like it but still they feel it should be introduced in the schools because it is an important topic.



iv. It is obvious that with this low literacy level among students, they would not know the basics in practicality, like discussing topics like finance and economics with parents or friends or even depositing a check in the bank.

This is what we have found out, only a mere 9% have deposited a check in the banks.

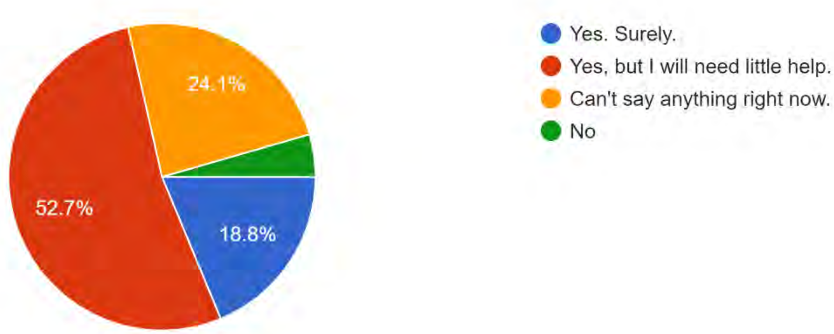




v. According to the data it is seen that the age group 14-16 are not yet well equipped or independent to manage their own finances when they travel abroad for education purposes.

20. You will be going to college soon, some of you may stay away from parents, do you think you are equipped with enough financial understanding to handle money on your own?

112 responses



5. Discussion

a) Statements with respect to our hypothesis

- After the research, we conclude that the situation of financial literacy among students is poor.
- Our hypothesis of 75% illiteracy of finance among students of age 10-16 is proven true.

b) Implications

- Schools in the Pune area will be made aware of the value of financial literacy early on. Today the financial education provided is not enough and has to be made sufficient.
- This research may be utilized in the future to mainstream financial education for high school students.

c) Solutions

- There are numerous ways in which the provision of financial education can be made in schools for the students.
- Schools can make arrangements of financial workshops of 2-3 days, where basics or the fundamentals can be taught to students regarding the topic finance. (Such as inflation, demand and supply or currency et cetera)

- Students today are well versed with the technology; schools can conduct webinars where students can attend from their homes.
- This is just the start to include financial education in the syllabus, after proper discussion, including finance in the main stream syllabus is no harm.

d) Factors affecting RQ

- The data available on sites can sometimes be misleading, trusting and ensuring that this data was authentic was one of the factors affecting our RQ.
- We made sure that all the questions in the survey were compulsory to answer, even the questions were designed in such a way that, they were interconnected with one another.
- We took interviews of professionals which have a lot of experience in this type of field. The information they provided to us was no doubt authentic.

e) Conclusion

- India possesses a little less than 20% of the world's population, for a country this huge, education of the youths should be one of the priorities.
- Ensuring finance into education is one more important thing. Today students are trapped in debt and other loans from the banks or relatives. Students cannot manage their money properly.
- **We conclude that students today are financially illiterate. Nearly 70% of the students don't know basic terms and fundamentals about finance. This is a cause of concern.**
- Students today aim for goals that are way higher, but they are unaware of the fact that for their venture they need proper management of money as well has other securities.
- The education system today builds the foundation on what the Britisher's left us after independence. This system was originally built for laborers and worker. This education system should change and must include important topics like personal finance, economics (advance), banking etc.
- Students who are tomorrow's citizens should get motivated to start businesses and big ventures in the city. It will create more job requirements which will in turn generate more employment. For this foundation must be strong and it starts with understanding of finance. The schools should take this responsibility to make their students future ready.

6. Reflections

a) Group Reflection

Indicators -Collaboration	4	3	2	1	Example
Every member of the team was always prepared, well informed on the project topic and ready to work.		✓			We made a WhatsApp group to be informed of all the tasks we did and planned. We worked on shared google doc.
Every member of the team always completed assigned tasks on time without having to be reminded.		✓			As we worked on a google do, we automatically came to know whether the task was completed or not. We also use to comment and reply comments by our mentor.
As a team, we created a detailed task list that divided project work reasonably among the team members.	✓				We divided the work among two of us. For ex. Ayush looked after survey of std 5 to 7 and Malhar shouldered the responsibility of std 8 to 10.
As a team, we set a schedule and tracked progress toward goals and deadlines.		✓			After every couple of weeks, we used to meet with our mentor and discuss the next step and deadline for completion.

As a team, we used time and ran meetings efficiently; kept materials, drafts, notes organized	✓				For every task, we created different documents. So that after they could be uploaded easily in the main draft.
As a team, we developed ideas and created products with the involvement of all team members	✓				We used to take suggestions and discuss about what should go or not go into the document.
Indicators-Communication					
Every member of the team listened to others' ideas without interrupting; responded positively to ideas even if rejecting.	✓				We have 2 members, we used to coordinate very well and listen carefully without disrespecting each other.
Team members communicated openly and treated one another with respect.	✓				We are friends for more than 4 years, so we never hesitated while sharing anything.
Every member of the team felt safe and free to seek assistance and information, share resources and insights, provide advice, or ask questions of each other.	✓				For every piece of information, we collected, we took suggestions from each other and asked doubts if we had any.

b) Individual reflection

- **Malhar Gandhe :**

1. The thing that I personally enjoyed the most was collecting information from different sources, it made me aware of the situation not only in Pune but also globally.

2. The topic we chose was a subject which I personally like crazily. So for me, researching on this topic was enjoyable but where I struggled the most was balancing my studies, extra-curricular activities and the research work. In the process I learnt time management and prioritizing the things. The rigorous brain storming, endless discussions with mentor, finding dates for experts' interview helped me to grow my interpersonal skills.

3. CaL helped me to develop my creative writing skill, this is where I lack the most. Comprehending information and then putting it down into the project is not one of my forte.

- **Ayush Lodha**:

1. I enjoyed a lot during the journey of the project. The first encouraging moment was the approvals which we received at first stage of the project. I feel happy to represent my school in CaL research project and would love to present our work in the CaL conference.

2. Not only me but we both, struggled a lot for getting the survey responses. We had a tough time to get dates of experts and then asking them appropriate questions. I faced an issue in collecting domestic data on the basis of age group.

3. Interviewing the experts was most enriching experience. We came to know how vast this field is and learning has no boundaries. With this project , first time I got to know the format of a research project. I understood how much efforts are needed to conduct a research and write the research paper. I was even exposed to the world of finance a bit more than earlier. Completing this paper is like a great achievement for me.

References

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2. https://streetfins.com/the-importance-of-financial-literacy-in-india/ : (2. Methodology – c) Authentic websites and Data from official portals. – Domestic)

3. https://www.cnbctv18.com/personal-finance/how-financially-literate-is-india-the-answers-will-surprise-you-975361.htm : (2. Methodology – c) Authentic websites and Data from official portals. – Domestic)

4. https://blogs.illinois.edu/view/7550/558591870 : (2. Methodology – c) Authentic websites and Data from official portals. - Abroad)

Appendix

1. Interview questions:

https://docs.google.com/document/d/1GOH_TJTM5c4Rtq0soNq0gDYoe9ncwb17Abo0vnDPNwM/edit?usp=sharing

2. Survey form for grade 5-7:

https://forms.gle/GSqvvhAk2NCCXrH57

3. Survey form for grade 8-10:

https://forms.gle/FNWYzQnYEH3JcB4N7