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## ANALYZING THE INVESTMENT BEHAVIOR AND BASIC FINANCIAL LITERACY OF JUNIOR, DEGREE AND POST GRADUATE COLLEGE STUDENTS FROM COLLEGES LOCATED ACROSS MUMBAI.

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### i. Abstract

Investments have gained momentum over the years since it is believed that merely earning money is not enough. One feels the need for a sense of social security in case of unforeseen happenings. The ultimate goal is to boost one's passive income so as to live a cushy life. Due to the prevalence of this mindset among investors, companies in India were able to raise 114.1 billion USD in 2019. Also, assets managed by mutual funds reached 26.94 trillion USD. To facilitate the hike in one's passive income, one's awareness levels with regard to investment should be stimulated from a tender age and one's mind should be conditioned towards risks associated with the same. In view of the above mentioned scenario, a comprehensive research has been conducted.

This research has been conducted to analyse the levels of awareness with regard to the concerned subject, analyse one's behaviour towards market trends and ascertain the road ahead. From the point of view of those who do not maintain investment portfolios, we wish to ascertain their understanding of the investment market and the financial literacy of both those who invest and also those who do not. Thereby, we wish to point out gaps in one's knowledge and establish a scope of improvement of awareness levels towards the same. To facilitate the same, a primary research has been conducted to collate Quantitative Data and conduct a Descriptive Research. Under the banner of Descriptive Research, a Single-Cross Sectional Study has been conducted on students across Mumbai ranging from 16 to 25 years of age. The reason for the same is to delve deep into just 1 section of society and develop the necessary findings in a comprehensive manner.

The results drawn have shown poor results which range from a low level of investment among students (16 to 25 years of age), which has been attributed to low levels of awareness of investment products and a significantly low level of financial literacy even among those who maintain investment

portfolios, to a greater reliance on convenient sources of information to make investment decisions such as family and friends rather than company financial statement analysis or market trend analysis.

An increase in the awareness levels of students with regard to traditional investment products such as Mutual Funds, Equity shares, Fixed Deposits and Insurance is advocated with a special focus on Derivatives. Family and friends are encouraged to inculcate the habit of financial statement and market trend analysis in youth around the age of 16 years to facilitate an increase in short and long term investments by students in order to secure the latter's future.

**Keywords:** Investment, Students, Investment Behaviour, Factors affecting Investment, Significance of Factors, Investment Holding Period, Financial Literacy.

## 1. Introduction

In the words of Warren Buffet, "In the business world, the rear view mirror is always clearer than the windshield." India's Investment growth lies partially in the hands of retail or individual investors. Retail or individual investors are the ordinary people who use their savings to make investments in a variety of investment products. The number of individual or retail investors has been growing at a CAGR of 11% in the past decade. And these investors account for 38% of equity market volumes. Their increased participation in capital formation can help to companies to grow at a faster pace and become job creators for the economy. Students can become an important part of the increasing group of retail investors in India and thus help in the capital formation in the long run, benefiting themselves as well as the economy.

The various factors related to investment decision making are products in which money is to be invested like mutual funds, shares, Fixed Deposits etc., the frequency for which the products are to be held, the amount of capital that needs to be invested among others. Each of these factors requires considerable amount of research before making a final decision in which product to invest.

While there have been studies conducted on investment behaviour adopted by adults or working class people, a study done on students' behaviour towards investment products has been rarely done. It is important to understand this because every student should have basic financial and investment knowledge to ensure that they are financially sound in future, also if they start investing at an early age the returns generated by the investment in the long term can help the students fulfil their various goals monetarily. Also increased investments helps in increasing the liquidity in the economy.

There are a lot of investment products out there in the market and each of them has their own benefits and implications. Students should at least know the fundamentals behind major investment products and how they function in order to ensure that they are aware of the risk attached with them. This ensures that a healthy investment behaviour is followed by students and that they use rational behaviour while making investment decisions.

Students can become a bigger target audience for the marketers of investment products if they understand the investment behaviour followed by students and their basic financial literacy. This can open new opportunities in terms of revenue generation also at the same time students can be rest assured that they have invested in right avenues as they will get correct and relevant information from these marketers.

A study has been conducted on the students residing in Mumbai region so as to analyse their awareness levels and sources of awareness regarding investment products, their frequency of changes

to their portfolios and their holding period of investments, factors affecting their investment decision making process and their basic financial literacy.

## **2. Study Objectives**

*(Research objectives describe concisely what the researcher is trying to accomplish through the research. Objectives summarize the accomplishments a researcher wishes to achieve through the project and provides direction to the study)*

### **2.1 To analyze students' awareness and the sources of awareness they resort to with regard to various investment products.**

This objective aims to study the penetration of various investment products in the minds of the investors and how conscious they are about these products. The objectives also deal with the sources of deriving such information and as to why the subjects choose that source of information. The financial products under study are mutual funds, shares, fixed deposits, derivatives and insurance with the sources of information being financial advisors, brokers, media and friends & family. These sources were set upon the parameters of 'Convenience to Avail', 'Authenticity of Information' and 'Price of Procuring Information'.

### **2.2 To understand the factors which affect students' investment decision making process.**

The objective aims to understand the basic risk factor that effect investors decision making and to see whether these factors affect students as well or not. It recognizes the relationship between financial literacy and investment awareness. The objective assesses the investment risks the subjects are most aware of in terms of technicalities and industry examples like liquidity risk, opportunity loss risk, inflation risk and market risk. It also studies the reasons for not holding an investment portfolio on the lines of financial constraints, parental permission, lack of technical knowledge and risk associated with each product. Moreover, it includes factors like market conditions, tips & rumors, inadequacy of technical knowledge and risk tolerance which investors decision making.

### **2.3 To delve into the investment behavior of students on basis of frequency, holding period and investment avenues.**

The objective aims to study and collect data regarding the number of times the subjects invest in financial products and activities, the average amount of time spent on investment research for making changes in investment profile, to study the investment holding period without any changes being made to the holdings and the various avenues the subjects could invest in. All this will help one understand the importance of investment factors over several elements of investment decisions like period of investment, reach of knowledge source, frequency of investment and analytical abilities.

### **2.4 To ascertain the level of basic financial literacy and their application while investing.**

This objective recognizes the relationship between financial literacy and investment awareness of students and its application. Financial concepts like time value of money, diversification, compound interest and inflation are discussed with the subjects of the study in order to come to know about their financial literacy and awareness. This helps us to analyze the familiarity of various investment products and activities among the target population.

### 3. Literature Review

#### 3.1 To analyse students' awareness and the sources of awareness they resort to with regard to various investment products.

**Aaradhi, V. (2018)** states that the Indian Investors, lately, have gained a lot of knowledge with regard to the various options available for investment. This study is centred upon objectives such as analysis of the financial investment products considering the marketing mix components, study and analysis of customer requirements with financial investment aspect, study of the future trends in the financial investment markets. It analyses the Indian investment market considering the marketing mix parameters and the acceptance of any new product financial product offering like Crypto currency investments in the Indian market. The Indian Economy is now poised towards a positive growth. Thus, this analysis will serve as the basis for further decision making in this sector. From the study, it is thus observed that the demand for various financial investment products is dependent upon the marketing mix components. It is also observed that the Indian Investor is very open to any new investment roads which would be secure and give an exceptional yield on investment.

Its findings include conclusions such as 80% of the Metro/ Non-Metro Population prefers to make an investment on Internet/Mobile based platform. Some of the Most Popular Investment avenues available are Government Bonds, Share Market Trading, Mutual Funds, Investments in Bullion/Gold, Fixed Deposits/Recurring Deposits with Banks or any other Financial Institutes From the survey conducted, it has been observed that the age, income and the knowledge of the investors are the most important factors that influence the investment decisions. The survey results have shown that Fixed/Recurring deposits and Gold/Bullion have large acceptance for the Age groups of 50 Above, whereas the younger investors tend to invest towards the Mutual Funds, Share Market trading. The following analysis carried out for the product covers aspects across all ages. The sample size of the population was 100 people across various age groups and demography. The availability of the services and products at competitive prices and maximizing the overall profits are the aims of the financial business activities. The same is being proposed by innovative marketing campaigns and new product launches. The survey conducted has shown that the Indian customers tend to make a conscious choice after a complete evaluation of the option. The Return earned is the chief concern followed by the security of the invested capital in the various options.

(Gap: The study also talked about awareness of investment products among people in rural areas but in our study we have only focused on students in Mumbai. This research paper also takes into consideration all age groups whereas we, in our study, have majorly focused on students).

**(Azhar, Juliza, Alizah, & Syafiq, 2017)** has analysed the condition of the youth of Malaysia with respect to their awareness on investment and investment activities. It concluded that participation of female young adults is higher (61.4%) than that of the male young adults (38.6%). Most of the subjects have an income of less than RM 1000 per month mainly due to the fact that they are still young. Financial literacy has an impact towards investment awareness as there is a positive relation between them using SmartPLS 3.0. Study concludes that environment does not have an impact towards investment awareness.

### 3.2 To understand the factors which affect students' investment decision making process.

**Wang, M., Keller, C., & Siegrist, M. (2011)** conducted a survey on risk perceptions of investment products in the German speaking country of Switzerland. The respondents were segmented on the basis of their age and gender and the findings were analysed. There was also a further filter on education levels and whether the respondents have an investment portfolio or no. The respondents were asked to fill a survey based on the psychometric paradigm. They included 20 investment products in their questionnaire and asked the respondents to rate these investments on seven scales which had various parameters like understanding, expert knowledge, etc. They also judged the perceived risk of the respondents towards each investment product. They concluded that knowledge related scales were highly correlated with risk related scales, but the correlation was much lower between perceived risk and historical risk of each product. The respondents found those products less risky which they were familiar with, this was likely driven by familiarity bias. Similarly, people prefer to put much of their wealth in domestic stocks instead of benefiting from international diversification, this is driven by home bias. Women rated the equity category as riskier than men did, however, women rated alternative investments (like art, gold, antique, etc.) as less risky than men did. Men rated blue chip stocks as very risky assets even though they considered this category as much easier to understand as compared to women. Perceived knowledge was an important indicator of perceived risk.

**(Azhar, Juliza, Alizah, & Syafiq, 2017)** has analyzed the condition of the youth of Malaysia with respect to their awareness on investment and investment activities with an aim to determine the factors that influence the cognizance of the young. This paper recognizes the relationship between financial literacy and investment awareness, the relationship between investment activities and investment awareness and the relationship between environment and investment awareness among the young generation. According to a study from Standard & Poor's dated August 2015, Households in Malaysia stockpile debts quicker than they earn in the form of income which will eventually lead to repayment problems when the credit cycle turns and people fall into a debt trap. The country's law declares that a person will be bankrupt if a creditor shows an outstanding debt of RM 30000. This actuality gives solid evidence on how serious the issues are. Thus, this study is central to have a clearer apprehension about the investment and how important it is for young generation to be aware of investment and its related variables, so it can be an idea to help reduce the amount of bankruptcy in the country. They inferred that participation of female young adults in the survey is very high (61.4%) compared to that of male young adults (38.6%). Most of the subjects have an income of less than RM 1000 per month (91.4%) mainly because of the fact that they are still young. Financial literacy has a noteworthy impact towards investment awareness with a positive relationship using SmartPLS 3.0.

**Chavan, D., Upadhyaya, M., Alazzawi, A. A., & Shishini, H. M. (2017)** has analysed the awareness of capital markets among investors. The respondents were segmented on the basis of gender and age-groups and further, the findings were analysed. There was also a further filter on education levels and employment status of the respondents. Key findings were made as to whom / what a potential investor deems to be a reliable source of information with regard to investment plans and advice. They concluded that students needed to have a first-hand experience with capital markets before any interest perked from within. The most reliable source of information was that of newspapers (54%) followed by research and personal study (50%). Males dominated the survey regarding participation in capital markets accounting for 62% of the survey respondents and the proportion of 38% are female investors. Investment options which required higher amounts of funds attracted fewer people to invest.

**Gentile, M., Linciano, N., Lucarelli, C., & Soccorso, P. (2015)** studies about the perception of financial information and subjective understanding and its influence on investment choices. A consumer testing exercise is to put to practise in order to discover how dissimilar formats or templates are evaluated in terms of usefulness and complexity, how they impact risk perception and the willingness to invest.

Initially, the respondents were told to rate the complication and the functionality of the formats and to determine the risk element of the selected products. An observation could be made that, perceived usefulness and perceived complexity are usually related reciprocally. In simpler words, the greater the difficulty of the information, lower the perceived functionality. After all this, in order to evaluate the link between information disclosure and risk perception, the subjects were told to rank products by their level of risk invested in each product. Now another observation made is that the risk of products is greater when unbundled templates are used, on the other hand performance-based portrayals are linked with a greater percentage of incorrect answers in rating product's riskiness. In the end, subjects were asked how much would they invest in each product given a time period, investment objective and initial funding. As anticipated, perceived complexity resulted to be the principal driver of the readiness to invest. All inclusive, this study shows that risk perception is dependent on the circumstances and mostly ascertained by the way financial material is disclosed. Also, indication about investor's diversity and behavioural prejudices influencing risk perception wires the idea that the ideal disclosure may not exist. They concluded that Risk preferences and financial decisions are sensitive to the way investment related information is disclosed. Simplification of financial data may not be adequate to ensure correct risk perception and unbiased investment choices.

**(Sharma, Goyal, Sharma, & Anil, 2014)** has several findings related to investment decision behaviour in Oman households. Starting with avenues of investments, ranging from real estate to company fixed deposits, resultant findings reveal real estate to be the most favoured one. The paper also surveys on factors influencing investment behaviour. This is where factors are distributed in two groups - rational and irrational factors.

While there is a relation between high income and low-income group people and their choice of investment, other factors like work experience, education level or occupation have no correlation to investment avenues or trends in factors affecting them.

### **3.3 To delve into the investment behaviour of students on basis of frequency, holding period and investment avenues.**

**(Geetha & Ramesh, 2012)** has thrown light on the importance of demographic factors over several elements of investment decisions like priorities supported characteristics of investments, period of investment, reach of knowledge source, frequency of investment and analytical abilities. The various demographic factors are age, gender, annual income, family size, education, annual savings, and occupation. They concluded that there isn't any significant relation between demographic factors and factors that influence the investment cognitive process. Factors being protection against risk, rate of return, safety of cash invested and liquidity. With the assistance of ANNOVA test, it was deciphered that there is no significant relationship between demographic factors and investment decisions. There is critical relation between few demographic factors (like family size, annual income and annual savings) and periods of investment. Chi-Square test with 5% significance level was used on the information collected and it had been found that almost all of the demographic factors like gender, education, age and occupation haven't any significant relationship with periods of investment but the opposite factors have significant relationship. Hence, the hypothesis was partially accepted. There is critical relationship between demographic factors like gender, age, education, occupation, annual income and annual savings with the sources of awareness obtained by the investors. There is an absolute relationship between all demographic variables and frequency of investment. Most of the people are inclined to form investments either monthly or quarterly. Private sector employees- invest on weekly basis and public sector employees- prefer annual patterns of investment. They concluded that there is critical relation between demographic factors like gender, education, occupation, annual income and annual savings

with the analysis of investment avenues by the investors. The analysis of investment proposals is based on technical analysis, company analysis, newspaper analysis and broker's analysis. 72% preferred technical and newspaper analysis. It was also found that earlier after independence, people in India preferred investing in physical assets like gold, assets, etc. over financial assets. But now their choice of investment is more or less equal for both.

**Prabhu , P. G., & Vechalekar , D. N. (n.d.).** has conducted his study to size-up the direction of mutual funds in investors and to identify factors that influence mutual fund investment decision. There has been an attempt to study the investment pattern and sentiments of Indian investors. The preference within the types of Mutual Fund schemes has also been a key focus of this study. While analysing the awareness level of investors with regard to Monthly Investment Plans, the research also throws light on the factors affecting such investments. It was concluded that for an investor, a plan offering a high return on investment coupled with liquidity was a highly sought option. The findings stated a high level of awareness with regard to mutual fund schemes and these are majorly patronised by a population belonging to the age-group of 19 to 55 years. Such a Diaspora of population falls within the income bracket of Rs. 30,000 to Rs. 70,000 and above. Moreover, diversification of portfolio and tax benefit are the main factors of mutual fund that allure the investors' sentiments. It was revealed that MIPs are generally preferred for their consistent returns. They concluded that Mutual fund investors belong to the age group of 19-55 years and fall into the income group of Rs. 55000-70000. The frequency of investment decisions are generally once a year (28.5%) followed by once in every 3 months (22.6%). Subjects are paying more attention to mutual funds with higher return, less risk and reputation of the company.

### **3.4 To ascertain the level of basic financial literacy and their application while investing.**

**(Azhar, Juliza, Alizah, & Syafiq, 2017)** recognizes the relationship between financial literacy and investment awareness, the relationship between investment activities and investment awareness and the relationship between environment and investment awareness among the young generation. They inferred that financial literacy has a noteworthy impact towards investment awareness showing a positive relationship using SmartPLS 3.0. It was found that environment does not have an impact on investment awareness.

**Chavan, D., Upadhyaya , M., Alazzawi , A. A., & Shishini , H. M. (2017)** posed questions to their target population with regard to their familiarity with jargons related to investment. It was observed that individuals needed to have a hands-on and tangible experience of the capital markets before any interest perked from within towards the same. The most reliable source of information was newspaper followed by research and personal study as reported by 54% and 50% of the surveyed investors respectively. Television with 48% was the reliable sources of information. It was further noted that there was tremendous growth of investment in IPOs as compared to Capital Markets. A good majority of such investors prefer to gain insight from newspapers followed by personal research on Capital Markets. They concluded that majority of the subjects (48%) had attained a bachelor's degree as their level of education which means it is easy to explain investors about capital markets since they have attained a laudable level of education. Most of the respondents were familiar with the terms used in investment activities, shares being the most known one with 92% awareness.

**(Janor, Yakob, Hashim, Zanariah, & Wel, 2016)** compares the financial literacy levels of the residents of Malaysia and UK. The respondents' financial literacy was examined based on demographic and socio-economic factors. The objective of the study was to gauge the extent of financial literacy and review its link with investment decisions. Questions were asked on topics like financial behaviour and attitudes and it had been found that the general level of financial literacy in both the countries Malaysia (51%) and UK (53%) was low. This means that certain necessary

measures should be taken by the government to extend awareness of financial related matters as investment helps in nation building. They concluded that demographic, economic, social and psychological factors are the determinants with reference to the effect of financial literacy on investment decisions. Both Malaysia and UK have a way more positive attitude towards future reflecting a positive reference to financial well-being. Women display a lesser financial knowledge as compared to men in both the countries.

(Agarwalla, Barua, Jacob, & Varma, 2012) attempts to map the financial literacy level of three important demographic groups, young working adults, retired and students. The study also attempts to understand the investment behaviour of both the retired and the working adults. The study uses the questionnaire by the Organisation for Economic Cooperation and Development (OECD) to achieve international benchmarking. The OECD approach is more comprehensive as it attempts to measure the most probable dimensions of financial literacy – financial knowledge, financial behaviour and financial attitude. Insights about these individual dimensions potentially provide valuable insights beyond those provided by financial literacy alone.

In case of students, which are the most important part of the research study conducted herein, (Agarwalla, Barua, Jacob, & Varma, 2012) provides some interesting findings such as minimal differences between male or female students.

#### 4. Problem Definition

**Study of Investment behaviour and basic financial literacy with reference to junior degree and post graduate students across Mumbai.**

*(A research problem is a statement about an area of concern, a condition to be improved, a difficulty to be eliminated, or a troubling question that exists in scholarly literature, in theory, or in practice that points to the need for meaningful understanding and deliberate investigation. In some social science disciplines the research problem is typically posed in the form of a question. A research problem does not state how to do something, offer a vague or broad proposition, or present a value question.)*

It aims to study the awareness of different investment products, their sources of information and what are their considerations while investing, amongst the students across Mumbai.

## 5. Research Methodology

*(It refers to the manner in which a research study is conducted by a researcher for a client or the manner in which a solution is drawn to the research problem at hand, i.e. modus operandi. It constitutes the Research Design, Sampling Design, Data Collection Method and Data Analysis tools used.)*

### 5.1 Research Design

*(This blueprint for the collection, measurement and analysis of data is a systematic planning, organising and executing a research project within a specific time limit and resource allocation.*

To facilitate the research study, a primary research has been conducted to collate Quantitative Data and conduct a Descriptive Research for the same. The choice of a primary research was due to the fact that we, as researchers, wish to provide plausible solutions and recommendations to the research problem on hand from a bottoms-up view of the chosen target population which led us to conducting a Descriptive Research. Under the banner of Descriptive Research, a Single-Cross Sectional Study has been conducted on students across Mumbai ranging from 16 to 25 years of age. The reason for the same is to delve deep into just 1 section of society and develop the necessary findings in a comprehensive manner. The fact that we did not wish to delve into multiple age groups or analyse the behaviour of an age group at different time intervals, i.e. a before-after analysis negated the use of Multiple Cross Sectional Data and Cohort Analysis respectively.

### 5.2 Sampling Design

*(It refers to the manner in which a sample is chosen from a target population so as to represent it truly and completely. It involves selection of Sampling Size, Sampling Techniques, Sampling Frame and Sampling Method)*

Sample size refers to the number of respondents from whom the researcher wishes to collect data to facilitate the research study. The chosen sample size for the research study is 202 respondents.

Sampling Technique is the manner in which individuals are chosen out of the target population from whom the researcher wishes to collect data. The Sampling Technique adopted for the research study on hand is Non-Probability Sampling due to the absence of a Sampling Frame (database of target population from which the sample is selected). Under this technique, Convenience Sampling has been adopted, i.e. respondents are selected as per the convenience of the researcher and no Sampling Frame is needed for the same.

### 5.3 Data Collection Method

*(It refers to the manner in which a researcher goes about procuring the relevant data / information from the chosen sample to facilitate the research study.)*

A survey method was adopted for the purpose of data collection. A questionnaire comprising 1 general section, 1 specific section each for investors and non-investors and a section based on financial literacy targeted towards investors was circulated as per the researcher's convenience. The survey comprised a sum total of 24 questions which covered each set objective in depth.

## 5.4 Data Analysis

*(It refers to that step of a research study where the researcher uses the collected data which has been processed to draw up conclusions on the research problem and suggest recommendations for the same with the help of statistical tools.)*

For the purpose of processing data, codes were applied to each option given in the questions. In certain cases, weights were applied in the case of comparing preference levels. While processing the collected data, in the case of Dichotomous type questions, Mode has been applied. A pie chart is also applied in certain cases to illustrate the same. For questions which involved rating criteria (investment products) on set parameters or where levels of awareness have been assessed, stronger statistical tools such as Mean and Standard deviation have been applied and also Median if the relevant questions warranted the same.

## 6. Findings

### 6.1 Analysis of students' awareness and the sources of awareness they resort to with regard to various investment products

From **Table 6.1.1**, it has been deduced that students are most aware about insurance and they gave 'Insurance' an average rating of 2.96 on a scale from 0 to 5 indicating that students have decent familiarity of the product. Also, a deviation of 1.5 has been observed in the case of Insurance which was the most amongst all the products. The mean levels of awareness of investment products among students has been graphically illustrated in **Chart 6.1.1**.

**Adamova H., Boudet P., Kalaoui R., & Segev. (2018)** in their report titled, 'How traditional insurance can disrupt through personalized marketing', published on Mckinsey's website said that personalization is the new way in which insurance products can be marketed, personalization means targeting customers with personalized messages, offers and prices. Therefore, a conclusion can be drawn that as insurance companies are increasingly using personalized marketing to reach their target audience, the level of awareness amongst people regarding insurance is increasing and the same can be said for students.

Through the analysis of sources of awareness through Mode, it was found that 106 students out of 202 chose 'Friends & Family' as their preferred source for awareness with regard to investment decisions as depicted in **Chart 6.1.2**. Hence, it can be said that students trust their friends & family more for gathering information related to investment decisions.

Through the Mean found **Table no. 6.1.2**, it can be inferred that students on an average consider 'Convenience to Avail' and 'Authenticity of Information' as important parameters for considering the source of information. Moreover, 'Convenience to Avail' has a mean of 3.42 on a scale of 1 to 5 and 'Authenticity of Information' has a mean of 3.43 on a scale of 1 to 5. **Chart 6.1.2** indicates that students prefer friends & family as they believe it is convenient for them to ask for information and they believe that the information they receive is genuine.

## 6.2 Factors affecting students' investment decision making process

Referring to **Table 6.2.1**, out of 202 respondents, 58 stated that they maintained an investment portfolio, and out of those 58, it was found that market conditions had an average rating of 3.53 on a scale of 0-5, indicating that 'Market Conditions' had a moderate to high effect on the investment decision making process of students. Hence, extreme volatility in markets could have a negative impact on students' investment decisions. It is also evident that from **Chart 6.2.1**, as 'Tips & Rumours' has the least average out of all factors, students show a rational behaviour while making any investment decisions and affected minimally by 'Tips & Rumours' given to them by third parties.

## 6.3 Analysis of the investment behaviour of students on basis of frequency, holding period and investment avenues

From **Chart 6.3.1** which depicts frequency of investment avenues chosen by students, it can be noted that Mutual Funds (38), Fixed Deposits (36) and Shares (35) are the most sought after avenues for investment amongst students while Derivatives (7) see the least traction among the considered target population.

**Dhawan, S. (2020, January 6)** wrote an article for The Economic Times titled 'Top 10 Investment Options' in which he threw light on the investments products that one should invest in so as to earn high returns. In the article, Direct Equity (Shares), types of Mutual Funds and bank Fixed Deposits were considered to be lucrative options. Similarly, as per our study, students displayed a similar behaviour with regard to their choice of investment products.

Delving into the 'Frequency of Changes Made' in one's investment portfolio, it was observed that 30 students out of 58 made changes in their investment portfolios once a month, indicating that they are open to invest in a variety of investment avenues or prefer dabbling across company stocks given limited funds within the same investment avenue, thereby holding a constant investment portfolio for a short term. This is backed by the findings that 23 out of 58 students hold their investment portfolio for 3 to 6 months, indicating that they prefer short term returns over long term stable returns and do not prefer that their money be blocked in a particular stock for a prolonged period.

From **Chart 6.3.2** which depicts frequency of modes of analysis chosen by students, it can be observed that 'Company Analysis (use of financial statements)' (25) is the preferred source of research on investment products, especially stocks. The next source of research in the 'sought after list' is 'Technical Analysis' (20) which comprises a referral to chart trends over time.

Post an analysis of the investment behaviour of those who maintain an investment portfolio as depicted in **Chart 6.3.3**, it is imperative to throw light on the magnitude of those who do not invest and the reasons for the same. A sum total of 144 students within our target population of 202 do not invest. This accounts for nearly 72% of the target population. Majority of the respondents (90 students, i.e. 62.5%) have attributed their practice of not holding an investment portfolio to 'Lack of Technical Knowledge', followed by 'Lack of Parental Permission' to do the same which accounted for 58 respondents (40%). 'Financial Constraints' and 'Risk Attached' to the security of one's invested funds make up 32% and 24% respectively.

According to Marc Davis (Source – Investopedia, June 25, 2019), in his article titled 'Tips on Portfolio Management for Young People', he has stated that one of the reasons as to why people don't invest is that they do not understand stocks or basic concepts such as Time Value of Money and the power of

Compounding. This corresponds with our findings which go on to confirm that students lack technical knowledge to carry out rational investment decisions effectively.

#### 6.4 Ascertainment of the level of basic financial literacy and its application while investing

The financial literacy levels of the respondents (those who maintain an investment portfolio – 58 students) has been judged on the basis of answers provided by them on the meaning of basic financial concepts such as Diversification, Time Value of Money, Inflation and Compound Interest. The number of correct answers received for each of these concepts are 46 (79%), 39 (67%), 49 (84%) and 39 (67%) respectively.

Considering the fact that these are basic financial concepts, though a good majority of the respondents have ticked the correct options as mentioned in the survey conducted, this level of financial literacy is inadequate for one who holds an investment portfolio. There might also be an error in findings due to boredom setting in on the part of the respondents due to the fact that this section appeared last in the survey questionnaire.

When asked as to which of the above mentioned concepts the respondents kept in mind while making investment decisions, 52%, 53%, 40% and 48% of the respondents kept the jargons of Diversification, Time Value of Money, Inflation and Compound Interest in mind respectively as illustrated in **Chart 6.4.1**.

#### 7. Limitations of study

The findings of this study are not entirely fool proof and accurate due to several reasons. The survey method used here is not census but sampling method which does not give a true representation of the population. Furthermore the survey is conducted by google forms which does not guarantee filling of the complete survey by respondents.

Sampling method used is convenience sampling which poses the limitation of Selection Bias. If a Probabilistic Sampling had been used, the findings would be more accurate. The basis of selection is closeness and quick response due to which, the results cannot be generalised.

The descriptive design used is cross-sectional which is conducted for this sample of population only once at a particular period of time. So the results and finding may not hold true a quarter or a year from now or for a different population sample.

The research objective are not exhaustive for the topic of investment behaviour and financial literacy as there are many more aspect that may have been covered but do not hold true for students. The objectives do not cover the depth of investment behaviour.

The research is based across students from Mumbai, so a pan-India study or a study in some other city such as Pune may not yield the same results.

Due to the onset of boredom among respondents, the latter questions in the survey may have procured answers which gave deviated results.

## 8. Conclusion

In the concerned research study conducted on students of Junior, Degree and Post Graduate Colleges located across Mumbai, we have analysed the awareness levels, sources of information, investment behaviour and financial literacy of the target population.

With regard to investment avenues, students are more inclined towards investing in Mutual Funds, Fixed Deposits and Shares in order of preference. Advanced avenues such as Derivatives have a low level of awareness and thus, are less sought by the target population.

In terms of sources of awareness to make informed investment decisions, students rely primarily on family and friends. The superiority of this source over others could be attributed to the high convenience aspect of it and also the fact that student investors have a poor financial literacy as judged with regard to basic financial jargons.

From an investment decision making standpoint, the target population was sensitive towards volatility of market conditions followed by limited liquidity of funds and the risks associated with depreciation of the capital invested.

Students are aware of a plethora of risks associated with investment such as Liquidity risk, Opportunity Loss risk, Inflation risk and Market risk (volatility of markets due to cyclical industry trends) with Market risk topping the awareness chart.

Students are more akin to making frequent changes to their investment portfolios rather than a want for stable and continuous return in the long run.

In terms of modes of analysis used, students resort primarily to company financial data analysis and technical chart/trend analysis.

In the case of those who do not maintain investment portfolios, lack of technical knowledge is the prima facie reason cited by the respondents for not investing in lucrative avenues followed by lack of parental permission to dabble with funds, financial constraints and risks attached to investments.

Considering the fact that these are basic financial concepts, though a good majority of the respondents have ticked the correct options as mentioned in the survey conducted, this level of financial literacy is inadequate for one who holds an investment portfolio.

## 9. Acknowledgements

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## 11. Recommendations

1. Awareness of students with regard to traditional investment products like Equity investments (shares), Fixed Deposits and Insurance should be increased.
2. To facilitate the increase of awareness of the same among students, sources such as family and friends should be tapped since students consider this source to be highly convenient and reliable.
3. To ensure a trickle down of authentic information from guardians to students, informative advertisements and experienced sales individuals should be used/hired.
4. Parents/ guardians should be made aware of the benefits of setting aside funds for investment from a tender age so as to encourage their children to make prudent investments.
5. Advertisements portraying safety of capital should be brought into the spotlight to break the myth of capital depreciation held by parents/guardians and students.
6. Parents/guardians and students should be introduced to less heard of investment avenues (as per our study) such as Derivatives.
7. Apart from relying on convenient sources of information such as family and friends, students should be encouraged to rely on concrete first hand data sources such as company financial data analysis and market trend analysis.
8. Students should be encouraged to set aside a considerable amount of funds and make long term investments especially in dormant stocks such as those of FMCG companies as they carry significantly higher returns and relatively lesser risk.

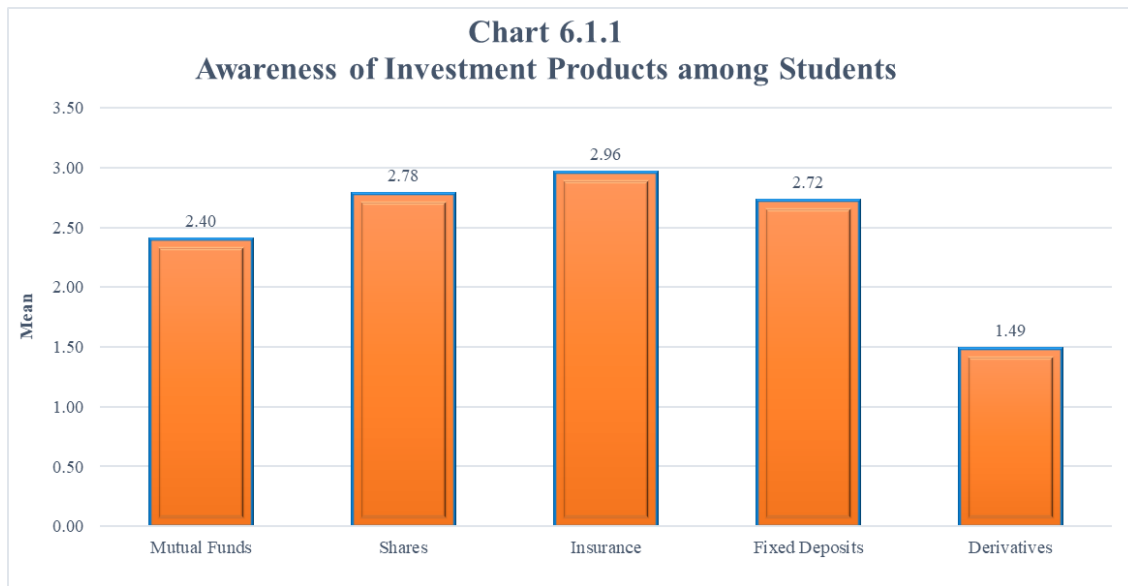
## Tables & Figures

Table no 6.1.1

### Awareness of Investment Products among Students

*Source: Primary Data*  
*Sample size: 202*

Avenue	Mean	Standard Deviation
Mutual Funds	2.40	1.48
Shares	2.78	1.47
Insurance	2.96	1.50
Fixed Deposits	2.72	1.46
Derivatives	1.49	1.46



Source: Primary Data  
Sample size: 202

Table no 6.1.2

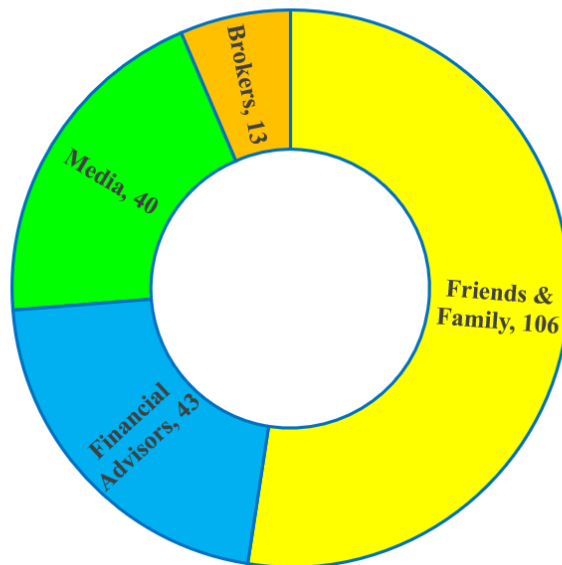
Reasons for Selecting Sources of Information



Source: Primary Data  
Sample size: 202

Criteria	Mean	Standard Deviation
Convenience to avail	3.43	1.24
Authenticity of information	3.43	1.19
Price	2.99	1.38

**Chart 6.1.2**  
Sources, in nos., for Deriving Investment Related Information



Source: Primary Data  
Sample size: 202

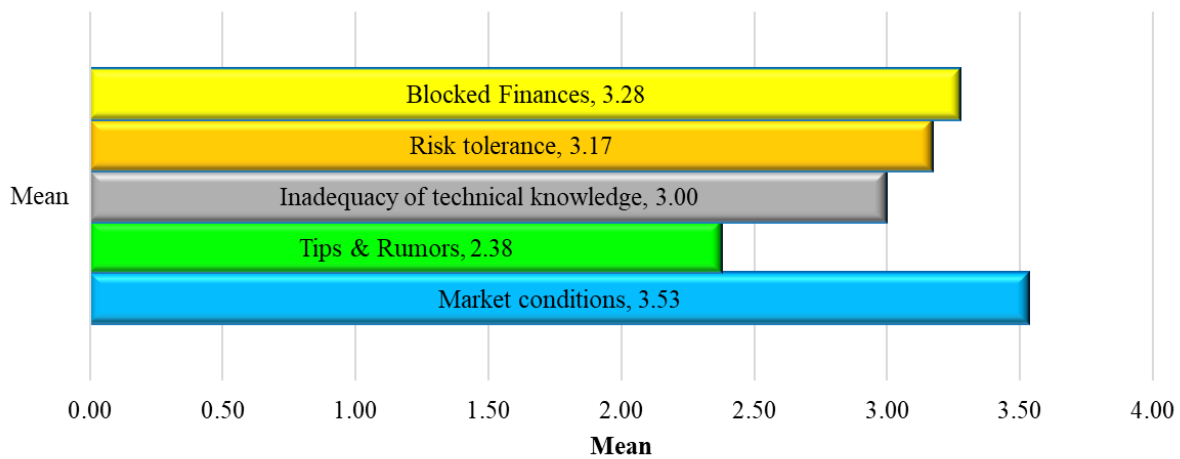
**Table 6.2.1**

Factors Affecting Investment Decision Making

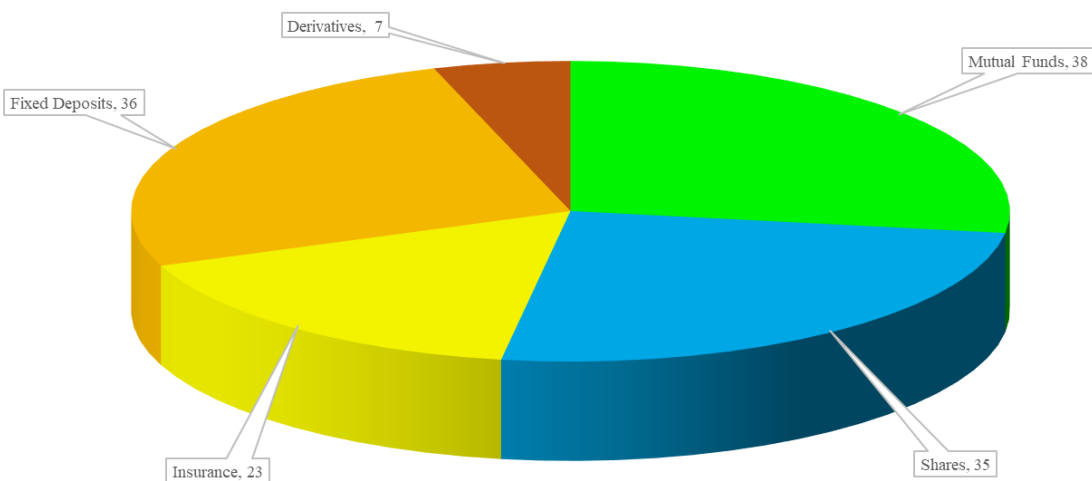
Source: Primary Data  
Sample size: 202

Criteria	Mean	Standard Deviation
Market Conditions	3.53	1.35
Tips & Rumours	2.38	1.39
Inadequacy of Technical knowledge	3.00	1.28
Risk Tolerance	3.17	1.37
Blocked Finances	3.28	1.51

**Chart 6.2.1**  
**Factors Affecting Investment Decision Making**

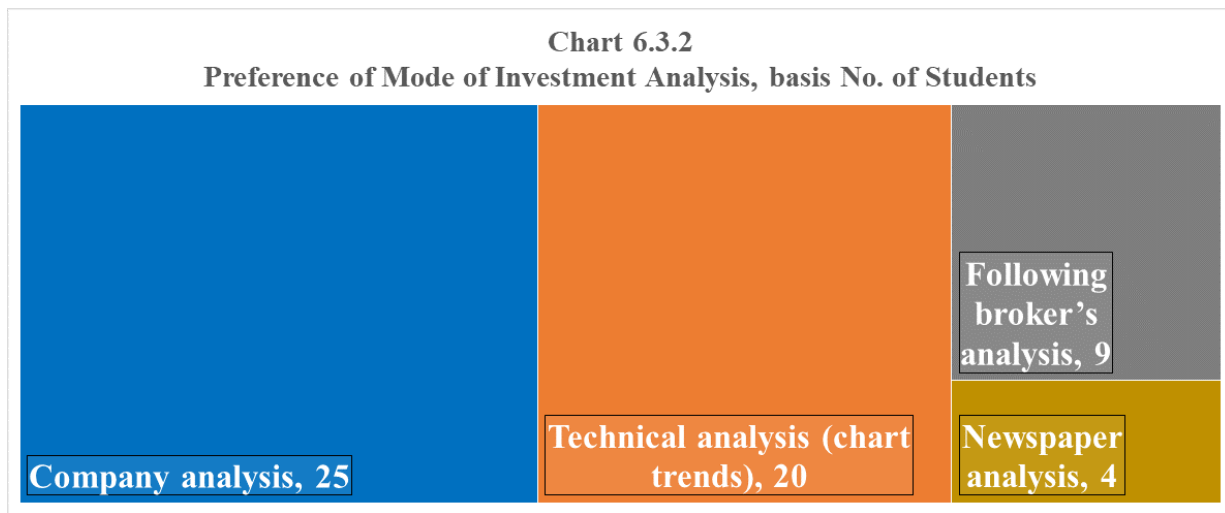


**Chart 6.3.1**  
**Choice of Avenues of Investment**



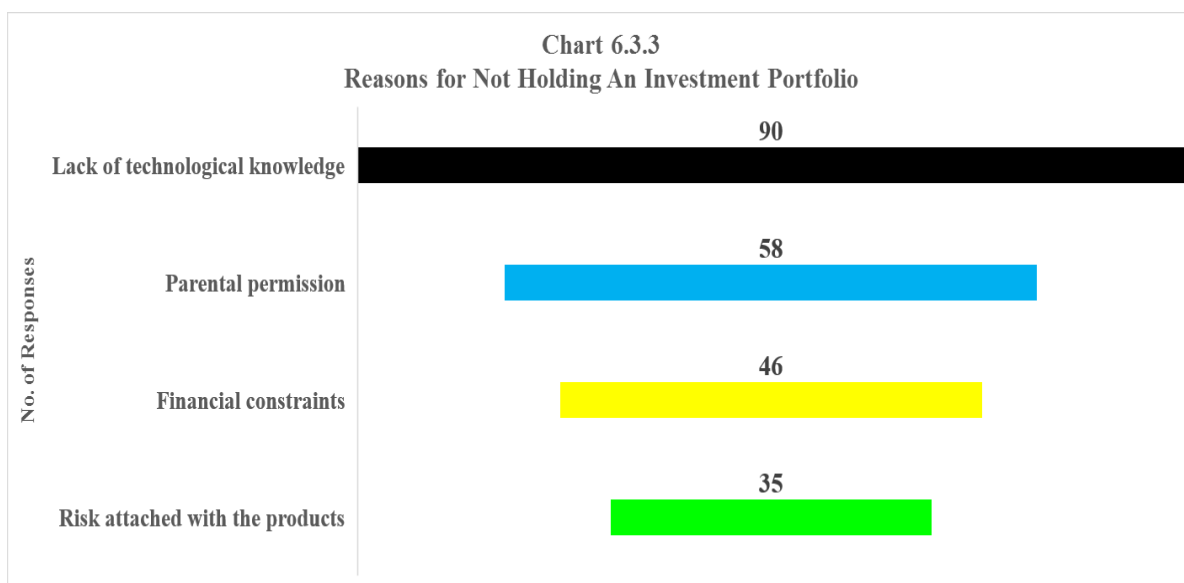
Source: primary data

Sample size: 58



Source: primary data

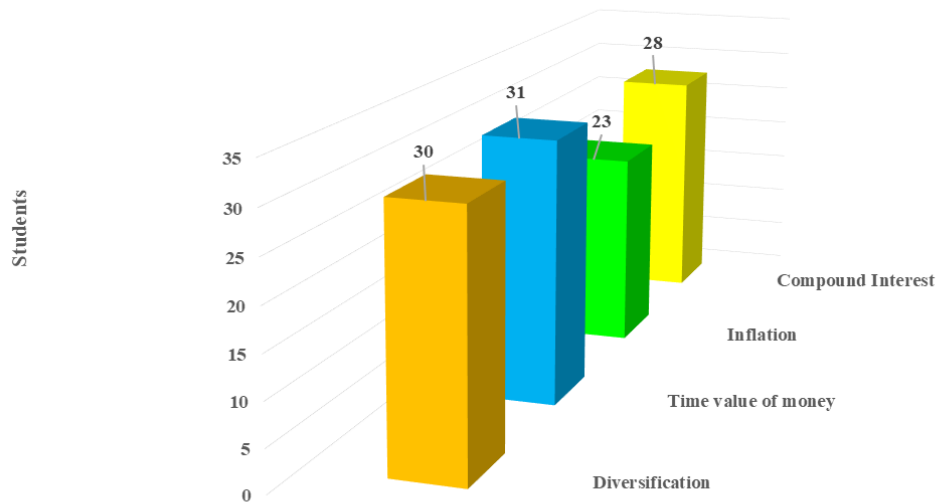
Sample size: 58



Source: Primary Data

Sample size: 144

**Chart 6.4.1**  
**Concepts Kept In Mind While Investing**



Source: Primary Data  
Sample size: 58

