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# BEHAVIORAL BIAS & ITS INFLUENCE IN FINANCE, INVESTMENT & DECISION – MAKING

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**Abstract**

*Behavioral finance has gained popularity in the last decades. The subject uses the research made in psychology and analyses the understanding of human behavior in financial decision making by considering observed human behavior. Most of us are aware that human behavior and emotions significantly affect investment decisions. Human nature is a complex web of greed, fear, temptation, impulse and other emotions, which makes them, react to different market situations. Psychological research has proved that there are various forms of bias which affect decision making and majority of these decisions are related to money, finance & investing. Behavioral bias and motivation is the main driving force in making investment choices. Behavioral biases attempts to relate the information processing to an Investors decision choices and preferences. The subject also claims through various research that an Investor should be in control of his emotions apart from having independent thinking, reasoning and analytical capabilities, market knowledge, and dynamics of investing if he wants to succeed in making a good investment decision. These biases are deeply embedded in human psyche and an essential part of human nature. Influence of these biases affect all investors no matter how professional or novice they are. Behavioral finance is a study of the effect of cognitive and emotional factors and an attempt to extend the role of these biases in financial decision-making & Investment.*

**KeyWords:** Cognitive, Bias, Investor, Investment Decision-Making, Risk, Optimal, Sub-conscious, Estimation. Psychological. Anchor, Irrational.

## INTRODUCTION

Over the last couple of years traditional finance theories assumed that, investors are well informed, careful, consistent, and knowledgeable in taking financial decisions. The assumption that emotions do not play any role in financial decision-making is erroneous and in reality, it is not. Behavioral

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finance has grown exponentially in the last few years as researchers are of the opinion that finance theories should account for observed human behavior. Some theorists have categorized behavioral finance in two sub-topics – Behavioral Finance Micro & Behavioral Finance Macro. The former explains the irrational behavior and biases of individual investors and the later explains that abnormal market behaviour. These occurs because individuals demonstrate different behavior at different times. Behavioural Scientists assume that each investor is a constituent of that market and the market is efficient. Behavioral scientist have interfaced research with psychology to develop the subject of Behavioral finance. In other words, the use of psychology to understand how people arrive at a decision and research in psychology have developed several such behavior called biases. These biases have significant impact in earning money from investments and they outline the process of individual decision-making & the preferences they choose from the alternatives. Study of these biases help investors make better financial decisions. Financial advisors, planners & analysts are able to understand distorted decisions, financial market behavior, improve performance and correlate what went wrong and why. Behavioral counsellors are also able to guide their clients and help them overcome these biases for their benefit. The following paragraph contains a comprehensive outline of some of these biases.

**Anchoring bias**

This occurs when an individual relies on a particular piece of information irrespective of weather that information is correct or incorrect. His future decisions are based on this information regardless of its outcome. That piece of information is termed as "Anchor" and all his investment decisions are based or centered around that Anchor. Once an anchor is fixed, judgements are made by adjusting or interpreting information around that anchor [66]. For example, an Investor feels that the price of a stock at which he will buy will be Rs 500 when it is low for the last 52-week period. Now suppose the price of the stock falls to Rs 600, he will not buy it because he has anchored it at Rs 500. Now, if the price of the stocks go up, he might lose out of a potential good investment opportunity & benefit of capital appreciation. In business, for example if the management decides to buy a used machinery, the initial quotation received might be an anchor for the rest of the decision on purchase or negotiation on price.

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**Affinity bias**

A common human tendency where people tend to make irrational investment decisions based on how a stock he or she perceives to be of value. An investor might show an eagerness to buy domestic stocks or foreign stocks also known as "Home country bias" or "Foreign Country bias". An investor might buy Company stocks, which work towards environmentally viable projects because he feels that by doing so he will be contributing to the betterment of the planet even if these companies are not foreseen to be profitable in future. Similarly, Affinity bias occurs when investors invest in Companies, which invests in social projects when he believes that the Company will do greater good to the society [88].

**Halo effect**

This bias is commonly known as the "First impression" bias or halo effect. Halo effect is a cognitive tendency to evaluate a thing based on impression of particular aspect, which leads to a positive impression of the overall product. Judgements based on small amount of information could be disastrous and understanding of halo effect is very important in real life. The bias was first discussed by Edward Thorndike and now popularly used in behavioural finance [67]. A share broker for e.g. may judge a Company's stock based on few characteristics ignoring the better ones. This bias occurs when there is a need to come to a decision quickly and the best way to overcome it is to study the whole aspect holistically and do own research and analysis.

**Confirmation bias**

This is another type of bias where an individual stick to pre-existing beliefs without verifying its correctness and authenticity. There is a tendency to justify and prove that the beliefs are true where in fact it is not. They might try to substantiate false information to support their beliefs. This bias is mostly unintentional and causes to draw conclusions from incorrect information [36]. For example, an investor might have an illusion that a particular stock will go up in future if purchased within the next 3 months. He will then try to collect information to prove the point that the price of the stock will go up and it might happen that the stock has suffered losses. He will still continue and go with investing in the stock with the hope that the price will rise and than he will make a profit out of it. The reverse tendency to critically analyze and contradict prior beliefs is known as disconfirmation bias [68].

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**Overconfidence bias –**

This is the most catastrophic of all the biases. Here the investor feels that the investment decisions he makes is the best of all his other counterparts. They believe that are better and wiser than others are while making financial decisions. Most of the time it happens that the decisions they made proved to wrong or counterproductive. This bias usually occurs when the investor makes a profit on few successful investments in the past and he develops a feeling of overconfidence that all his decisions in future will earn him a profit no matter how bad the decision is [34]. For Example an investor purchases a stock which was all time low during the last few years and almost dead and he invests in that stock with the hope that some day it will rise and earn him a profit. Over ranking bias is a type of confidence bias where people rate themselves superior than that of others. In business & Investing, this often leads to taking too much risk-taking ad finally leading to disastrous consequences. Timing optimism is another type of psychology where people overestimate the time required to complete a particular task.

**Mental Accounting bias**

This was developed by behavioural Economist, Richard Thaler. This bias is a human tendency to treat various pools of money differently depending on the source and how it is planned to be used [37]. For example, an investor has a certain amount of funds to be invested in equities and fixed income securities. He comes across a few stocks worth $50000 and bonds worth 150000$.Suppose the broker says that he can procure both the equities and bonds at a reduced price of 10000$ early next week. The investor would prefer to wait for the equities until next week as the savings of 10000$ is seen by him as larger than the investment in bonds even though both the savings are the same. Another example could be an investor feels that a dividend from equities is a huge source of income and ignores the bonus shares received even though the source of both is the same from equity holdings. Tax refunds, bonuses, lottery winnings, gifts are perfect examples, where the money is not factored in financial planning. The amount when received is considered a windfall and the money is recklessly spent in impulsive purchases.

**Status Quo bias**

Status quo bias is a preference given to the present state of affairs and a natural bias towards the current or previous situation or experience. A given standard is considered as

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the reference point and an individual prefers not to deviate from that point. This cognitive form of bias is usually found in risk averse investors. Loss aversion is the primary cause of this bias. The investor feels that the current situation is always better and any deviation from the current state of affairs is perceived as a loss. Even if the changed situation looks promising the investors prefers to stick to the original one [40]. For example, an investor would prefer to keep money in Fixed Deposits even if alternative investments options of other banks are profitable or a financial decision wherein a Company prefers not to invest in a project because the location is in a foreign country and not in the home country no matter how profitable it is. Behavioural Scientists say that this bias is a big hindrance to effective decision-making.

**Recency bias**

Recency bias is the tendency of an individual to recall or emphasize recent events or observations. Recent information is considered more valuable than old information [33]. For example, an investor may start to invest in mutual funds or a particular segment stock because the advertisement was prominently displayed recently in the media. Another example could be an investor stopped investing in foreign or European bonds because of the crisis in some European countries. The investor makes financial decision based on those events [69]. When there is a tumultuous period in financial circles investors often quote the last global crisis, which hit the whole word that is the recession in 2008-09.

**Sunk cost Bias**

Sunk Cost is a cost, which has already been committed in a project and there are no chances of realizing the investments. Fixed costs are sunk cost and the tendency to invest resources with little or no chance of recovery. This trap is called escalating commitment. It is a logical fallacy that future investments are justified because the resources already utilized will be lost if not continued. The investor has a feeling that the cost that he has incurred will be recovered if he puts in more money which in fact is not true. This bias occurs due to ongoing commitment. This is very risky as it could lead the investor to a debt trap [56]. In financial decision-making, a Company might spend millions on developing a product, which probably has no market at all, Finance Managers invest time, money & energy and persevere to work on it with the hope that someday the product will capture the market, generate revenue and the

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cost incurred on its development will be recovered.

**Self-serving bias**

This is a tendency of Individuals to link their success or profits from investments to personal factors and all failures are attributed to external or situational factors which are beyond their control. This bias is commonly found when people want to enhance their self-esteem. An investor suffering loss will attribute the reason to bad stock market conditions even if their decisions were wrong in stock picking. Similarly if he has earned or made any profit would attribute the reason to his knowledge or judgement made in investing. This bias is often observed in Mutual fund investment where the portfolio or the scheme manager attribute all losses to the poor market conditions and all gains to their knowledge and skills [70].

**Normalcy bias**

This is a psychological phenomenon where people tend to underestimate the probability of a disaster happening and the catastrophic effect it could have on the life and property. There is a feeling that if a disaster has not happened until now than will not happen anymore and everything is perfectly normal. When the real disaster happens, the individual finds it extremely difficult to cope up with and cannot as a result adjust with the change or react to the situation [71]. For example in investing it is seen that people do not hedge against risky positions in the market and when there is an actual downward spiral occurring in markets the investor finds it difficult to cope up with the loss suffered. In short, an assumption that everything will automatically restore to normalcy.

**Impact bias**

The impact bias, a form of which is the durability bias, in affective forecasting, is the tendency for people to overestimate the length or the intensity of future feeling state [41]. For example, an investor who makes a windfall gain from investing has a feeling that his excitement of the gain will last forever. However, as few months pass by the feeling gradually vanishes with negative events happening in their personal life. Dan Gilbert, a social psychologist at Harvard University in his book “Stumbling of Happiness” discussed this bias and provided behavioral insights to this type of bias [93].

**Choice paralysis bias**

This is a bias, which occurs when an individual is offered with too many choices. He fails to decide which option to pick for

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seeking an optimal result. This usually happens when an investor seeks a perfect solution and the fear of making a wrong decision results in a no decision made at all. Choice paralysis is also called the paradox of choice and developed by Barry Schwartz who said that the more choices an individual has the less likely that he will take action and equally likely that he would not be satisfied with the decision [72]. For example, an investor has the option to choose from equities, mutual funds, forex etc. He is not been able to make a decision because of many choices he has at his disposal. The primary cause of this bias is also due to information overload on an investor.

**Curse of knowledge bias**

This is another cognitive form of bias where knowledge and expertise of any subject makes an individual vulnerable to curse. The more familiar you are with any subject, the harder it is for you to put yourself in the shoes of someone who is not familiar with that thing. A person cannot unlearn what he has learned or experienced over the years and at the same time, he cannot go to the basics and learn it again [42]. It becomes difficult to explain the subject to others who are new to it and think according to their level of understanding. This bias causes a person to believe that people understand him better than they actually do. This occurs in financial investing where an expert understanding of a product leads the investor to make a decision of buying or selling without making a proper analysis of the underlying product. Excessive knowledge causes wrong decision [46]. In 1990, Elizabeth Newton, a Stanford Graduate performed an experiment that illustrates the curse of knowledge bias.

**Ambiguity aversion bias**

This is another form of bias where an individual prefers known risks for unknown risks. The individual prefers to choose an alternative where the outcome is certain or known than where the outcome is unknown or uncertain [44]. An example would be an investor parking his surplus money in fixed income instruments than in speculative or volatile instruments. In the former the income that he is going to earn is certain and unambiguous than the latter option. The investor performs a mental calculation at the back of his mind of income that would accrue to him before shelling out money in stocks.

**Blind spot bias**

A psychological tendency where people believe that they are more correct in their judgement and analysis than that of their

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peers. People believe that they are more capable and have superior abilities in terms of performance in comparison to others. A person with blind spot bias is most likely to ignore advice and listen to another person's evaluation. This bias has the potential to create conflicts within the Organization, as people with these biases are averse to criticism and do not make efforts to improve decision-making. Even after providing training people exhibit resistance to change their views, usually adamant and unwilling to change the quality of their decision. In finance it is seen an Investor making a buy or a sell decision of a stock and advising others to do the same no matter how incorrect the advice is [73]

**Denomination bias**

The denomination effect is a form of bias where an individual is likely to spend the smaller denomination of currency than the larger ones. This effect is commonly observed in investing where an Individual has more propensity to buy the stock when the asset class is comparatively larger than the smaller ones [53]. For example if an individual is having a 100 rupee note and at the same time ten 10 rupee note on his wallet he is more likely to use the ten 10 rupee note first instead of the 100 even though the result is the same. Another example would be an investor receiving 50100 rupee as dividends and he would spend the 100 rupee first and retain the 50000 rupee.

**Disposition effect bias**

This is the most irrational of all the human behavior. The tendency of an investor to sell stock, which has risen in value, rather than stock, which has gone down in value. Financial prudence say that an investor should hold stocks, which is rising in value because that stock has the probability to generate greater returns in future. Behavioral scientist have time and again tried to understand as to what is the motive that drives this behavior and the Prospect theory developed by Daniel Kahneman & Amos Tversky in 1970 is the best available description of this behavior & risk perception by an investor as of date [74].

**False consensus bias**

This is a form of cognitive bias where there is an inherent tendency of an individual to assume that others have accepted their opinions, viewpoints & belief around them. There is a perception that a consensus exists where in fact it is not. There is "false consensus". For example, an investor might have invested in a particular category of stock

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and he starts advising others to invest in that stock with the belief that the other person would exactly do what he has done. This bias increases a person self-esteem but he may feel worthless later on when he realizes that he has overestimated his skills, knowledge and abilities [75].

**Familiarity bias**

A psychological tendency of an individual to develop liking or preference for an object with which they are familiar. The human mind comes to a decision quickly based on similarities of past events and come to a conclusion of the current situation. This bias may therefore mislead in future. For example if a person is familiar with an equity stock than it is very likely that he would invest in equities leaving all other investing options. Once this bias sets in for a particular object it is very difficult to change perception about that object no matter how attractive the alternative options are. Another example could be an investor trusting a financial adviser whom he has met only once without actually finding out if he is really experienced or competent enough to give advice. Also known as the mere exposure effect [30].

**Framing effect bias**

Another example of cognitive bias where people react differently to a particular choice depending on weather the choice is projected as a loss or a gain. Simply put, the same facts if presented in two different ways could lead to two different outcomes. This occurs and relative to how the information is presented or depicted. For example if in a stock market analysis a falling stock is analyzed as a good stock and a rising stock is analyzed as a bad stock the investor would make up his mind to put money based on those analysis. Lot of market mis-selling happen due to this bias and gullible investors fall an easy prey to unscrupulous stock market analyst. The best way to guard against framing bias is to thoroughly read and understand the information and see what impact it could have on the conclusion [31].

**Endowment bias**

This is a situation where an individual gives value to an object, which he owns than something, which he does not, owns. Endowment effect was popularized by Thaler in 1980, people would often demand more to give up an object than they would be willing to pay to acquire it. For example, an investor holding on to falling stocks with the hope that it will fetch higher returns if retained for a longer period. They consider their holdings

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as valuable. This happens due to endowment effect. This is the reverse behavior of a rational investor. It is often seen that an investor is willing to pay significant extra for a particular thing if he believes that by paying more he will very shortly own that particular thing. This bias led many people to debt trap from where they were never been able to come out [76].

**Regret aversion bias**

This is a bias where there is a fear or feeling that the decision taken today would prove wrong in the future. People tend to avoid expensive mistakes and all decisions appear to them as costly. An individual prefers to not take a decision at all or put money in a project than to regret later on the outcome of that decision. Financial investments come with due share of losses and gains and the risk averse investor prefers to minimize the feeling of pain by deliberately choosing risk averse strategies [32].

**Social proof bias**

This bias is otherwise known as the bandwagon effect or group thinking. This occurs when an individual does or says something because they have seen some people around them speaking of the same thing. This bias creeps in when an individual is either not informed or misinformed and they form opinions contrary to their beliefs. People prefer to go with the majority instead of going on their own. A common tendency is observed where people adopt opinion and follows the behavior of the majority so that they feel safe and avoid conflict. Also known as the "Herd Mentality". Either they are not interested to do their own analysis or they find it time consuming. They have a feeling that if somebody has done it is advisable to go with that tribe and follow them [77]. The financial meltdown of 2008-09 caused because of this. People moved in herds to obtain subprime loans and when all defaulted on their debts leading to crisis in the entire global financial economy

**Gambler's fallacy**

This is a false assumption that a current event will determine the outcome of a future event. In other words, the probability of an event decreases when it has occurred very recently but actually, the result of a future event is unrelated to the result of a current event. For example, an Investor putting money in stocks in particular sector say telecom, and he earns good returns out of it & satisfied. Now the Investor starts investing in infrastructure sector stocks with the hope that it will give him good returns because of his experience

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with the telecom sector stocks. The investor commits gambler's fallacy because the return on infrastructure stock has no relation at all with the telecom sector stocks. Investor falling prey to gambler's fallacy is highly vulnerable to run into severe debt trap [78].

**Affect heuristics**

Affect heuristic is a mental shortcut where people jump to a decision quickly and instantly. The feeling of good or bad drives the ultimate decision of the individual [58]. Researches have shown that if an individual is in a positive mental state than he is more likely to perceive any decision as giving good benefits with low risk. Conversely, if a person is in negative state of mind than the decision will be perceived as low in benefits and has high risks. This emotional response plays a significant role in personal finance & investing and could potentially lead to wrong decisions made, opportunities missed leading to unfavorable outcome.

**Recognition heuristics**

The tendency of an individual to compare two available options using some fixed criteria's and then choosing one of the alternatives. There is a bias that the recognized object is more valuable than the unrecognized one. Goldstein & Gigerenzer suggested this in year 2002. When Finance managers are confronted with two options such as which region is more investor friendly, Asia or Europe, they are more likely to choose the option with which they are familiar. The decision made using this heuristic is more likely to be correct when taken under time pressure because there is limited information search. People with little knowledge of stocks and even less knowledge of markets invest in stocks they believe in and hold them for longer periods. They rarely sell those and add only once in their portfolio. This behavior is an example of fast & frugal heuristics [79].

**Similarity heuristic**

Similarity heuristic is a psychological tendency to make decisions based on experience. An individual tries to pick up similarities from the favorable experience he had in the past and makes judgements or decisions based on those experiences [8]. For example, an investor will look for those stocks similar to what he had purchased a few years back and he will mentally try to figure out the similarities with those stocks before investing. Understanding of heuristic are useful as they sometimes lead to faulty decisions. The common heuristics are availability, representative & base rate [80]

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**Information bias**

This is a tendency for individual to seek more and more information even if the information is not relevant to the decision. This bias occurs when any information is either inaccurately measured or recorded incorrectly. In large organizations, Senior Leadership tries to source information from multiple sources before investing in projects and asks for more reports and analysis. They have a bias that the value of this information would largely mitigate the risk in a project [81].

**Outcome bias**

The tendency to see the results by its outcome instead of the quality of decisions taken at that time. A failed project does not mean that the decision was wrong and attributed to other factors unrelated to the project or may be that was the best alternative. Financial managers often review the same project multiple times to overcome outcome bias. Baron and Hershey described this bias in their paper "Outcome bias in decision evaluation" [21].

**Omission bias**

A tendency to see future harmful actions as worse instead of equally harmful inactions or omissions. At times, people prefer harm caused by inaction to lesser harm caused by the action. Financial managers believe that a recent financial proposal is not feasible or risky than the existing project, which are giving less returns even though the cost of both the project alternatives may be the same. Wrong cash flow estimation happen in project financing due to this bias [9].

**Post decision rationalization bias**

This bias occurs when people have invested considerable effort, time & money in any activity and they try to convince themselves that the expenditure incurred is worth it. People initially overlook the negatives while making a decision and then attempt to justify the wrong choice made & try to convince others. Also known as the choice supportive bias [14]. Financial managers often reject good proposals and they feel that the initial cost incurred is the best and further review or estimation of cash flow is not required [26].

**Source credibility bias**

The belief that the person, organization who has provided that information or the source of that information is not credible. This information's are ignored or rejected even if they are right & authentic. The reverse is accepting information from untrusted source with a belief that they are true and genuine.

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This bias ultimately results in poor financial decision-making because of under estimation of the trusted and reliable source [92]

**Student Syndrome**

This is the tendency to wait until the deadline date to finish or start approaches. Sir Goldratt popularized this bias in 1997. The name is derived from behavior in students where they start to study a night before the exam starts. In Financial, budgeting the departments starts to utilize the budgets at the end of the year when the budget period ends. Also, in another example would be filing annual financial reports when the last date has approached. Also, called procrastination and a belief that work is better done when the deadline approaches and the task gets priority for completion. This bias is a big obstacle to working efficiently especially projects, which are critical, and time bound [82].

**Optimism bias**

This is popularly known as wishful thinking. Beliefs, decisions & actions, which look very appealing but very hard to achieve or cannot be achieved rationally. A belief that the future will be much better than the present. Financial projections are usually associated with this type of bias. By being optimistic Finance, managers make estimates and try to project a rosy picture based on past results to Investors when they are in need of funds for expansion or diversification and resulting in bad decisions [83]

**In-group bias**

The tendency to give importance or preference to person who belong to the same group. This is observed when one favors person who belong to the same race, ethnicity, religion or nationality. There is an "Us Vs Them" feeling where people treat those in the outgroup differently than those in the in-group [25]. This usually happens in financial decision making where there is representative members from different business units. The decision maker prefers to accept opinions or suggestions from the member who is from his group or department and tend to ignore other group members [84]

**Generation effect**

The generation effect refers to the finding that people remember information better when they actively participate to produce it, rather than being provided by someone else. An individual will retain information, which he has actually experienced or dealt with before than something, which he has heard or read. For example, a Finance manager who had a tough time to secure a bank loan would

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remember it for long than if he would not have faced at all. This bias actually is a good strategy for learning [90].

**Hindsight bias**

The bias where people believe that they knew the outcome of the event before it actually happened. This phenomenon is referred to, as "I knew it all along". People foresee all outcomes as predictable with all the available information at hand. In Finance, this happens when the Organization or the respective department fail to meet the revenue targets. This bias sets in and they feel convinced that they were sure of the outcome beforehand and their predictions were stronger & inevitable [23]

**Picture Superiority effect**

As the saying goes "A picture is worth 1000 words". People tend to remember when facts are presented pictorially or graphically than by mere words or sentence. Picture superiority effect play a significant role in retention & recognition memory. Human memory captures information using two different codes, the "verbal" code and the "Image" code. Visual images are easy to remember and easily retrievable when required. In Finance, a budget or a financial project proposal is more likely to be approved if it presented in proper viewable format. The audience appreciates a power point slide or a video projector running film associated with pictures, images and graphs [89].

**Conjunction fallacy**

An unwanted importance to detailed scenarios. People often erroneously judge the probability of two events occurring together as higher than the probability of occurrence of one of the events [20] It is a faulty assumption that detailed conditions are more probable and likely to happen than general ones [47]. For example if a Finance manager is asked to select one funding proposal from many he will choose and pick the one which has the maximum details attached to it even though it may not be the best available option. This leads to indecision and waste of valuable time & effort.

**Repetition bias**

A belief that if something is talked about by most number of people most of the time than that particular thing is most likely to be good. A general belief that if a particular thing is spoken at length by too many people than there is some truth in it and is blindly believed. Research shows that when a person is uncertain about something than there is a tendency to seek approval from others to

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reinforce the certainty [19]. The more a particular subject is repeated the truer it becomes. This bias is also known as the "illusory truth effect". Repetition bias is the memory effect and likely to result in wrong decision in critical business situations.

### Zero-risk or certainty effect bias

A preference of certain or small benefits over larger ones, which are uncertain. This is the same, as "I will play safe". Uncertainty is a dynamic state and Individuals are naturally averse to avoid discomfort and unpleasantness. This bias occurs because people try to reduce this feeling. Zero-risk solutions are usually preferred for risky decisions [91]. Financial managers prefers to avoid small risk rather than mitigating a larger one. Another example could be an investor's preference for fixed deposits where he is certain that he would get the return irrespective of the market situation. Kahneman and Tversky introduced certainty effect in 1979 [18].

### Discounting bias

The preference to smaller returns to longer returns especially when the smaller returns accrue within a short period. Also, known as hyperbolic discounting. The delay in reward makes them less attractive and people choose to discount them. In personal finance, investment behavior is patient in the long run and impatient in the short run. People are impatient in the  For example, a Finance manager would prefer to invest 5 million now with immediate cash flow than on one with 10 million-investment cash flow after 5 years. Management's short-term vision & eagerness for instant returns is often the root cause of this bias [86]

### Control illusion

A belief of the decision maker that they will be able to control the outcome of an event in future even though they have no influence. This illusion develops when the participants are involved too much personally and try to influence the outcome. Sometimes Finance Managers make impractical financial projections of cost & revenue with the impression that they will be able to contain the cost and increase the income but in reality, it is not possible as externalities come into play. This is similar to being overambitious in business situations not under control [16].

### Experiential limitations

This bias occurs when an individual limit their current or future activity based on previous experiences. People fail to think

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further & beyond. There is a tendency to reject unfamiliar things even if it appears to be profitable & they tend to focus on evaluation of a single activity or choice. Bad experiences of the past stop a person to get into trouble again even though the action is promising or likely to benefit. This bias inhibits creativity, as there is a tendency to reject good ideas and hinders Organizational growth [87]

## CONCLUSION

Behavioral finance is a wonderful supplement to the demerits of economic theory and has important academic and practical application. Behavioral biases sometimes are a greatest threat to a person's wellbeing. These biases historically have been studied empirically and a majority of the empirical literature uses experimental economics and surveys. Behavioral Finance could not adequately explain as to why Investors over react under certain situations and under react under other circumstances. Behavioral finance assumes that financial markets are informationally inefficient which practically is not. Only a few of the biases discussed in the paper considered real live data from individual. Behavioral finance attempts to find an answer & explain irrational financial and investment decisions. Psychological bias can influence the risk-return optimization, asset allocation strategies, and finally the investment outcome. The study of these biases can help the Financial Service Industry to devise suitable products and services so that the Investor do not make wrong decisions. Further, it explains the reasons & emotions that guide the decision-making process and save investors from damaging their own financial position & future prospects. In an uncertain environment, knowledge of bias & heuristics can help reduce risk & can aid decision-making. The biases discussed above would be a useful guide & provide a framework to devise appropriate investment strategies to investors and managers. The subject has assumed an important role all over the world in recent times.

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