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## Status Quo, Monetary Loss-Aversion and Forecasting - An Approach to Investment During Amygdala Damages & Asymmetry

**Abstract** *The research essay aims to understand investor's ability to forecast having the perception of status quo and monetary loss-aversion in the situation of amygdala damages and asymmetry during decisions regarding stock's investment and use of several techniques to make efficient investment decisions based on optimal forecasting. The objectives of this study are to inquire about the irrationalities in investors at the time of stock's investment, having status quo and monetary loss-averse bias of investors at the time of amygdala damages and asymmetry and find-out the ways to deal with these situations. A qualitative research style was used for data collection for the subject study. Partially-organized discussions were arranged to get information in detail. A sample of 15 experienced stock marketers and brokers and 35 investors from the Pakistan stock exchange were selected for this study. This inquiry found the definite type of edgy and biased investor's attitude in the market and also found their solutions. This study perceptibly peaks the ways to deal with stress and biasness through optimal forecasting techniques and some other suggestions.*

**Key Words:** Status Quo, Monetary Loss-Aversion, Forecasting, Investment

### Introduction

Investors almost always face a very common issue of maintaining the purchasing power of their wealth, i.e., assets and still manage to fetch the real returns, which is also aligned with their investment goals. The two parts of the mentioned problem remain critical, but one may question which one of the investor's assets has the potential to survive the consequences of the inflation – due to asymmetry – but still remains unconcluded in our literature of modern finance.

Numerous studies have already been conducted to analyze the relationship between inflation and stock returns; most of this literature explored the links between the two. The economic theory also mentions the existence of the relationship between inflation and returns on the stock. Apart from the many studies, which resulted in the exploration of linkage between stock returns and inflation, the underline principles are not clear, whether the relationship is clearly positive or negative in nature.

The phenomenon of inflation will occur whenever the real value of money decreases or, in other words, the same amount of money is able to buy lessor goods and services in the same geographical area. A common belief and theory about equity investment are that equities are generally covered, i.e., hedge against inflation because it is believed that these equities own the real assets of the business, and hence inflation cannot affect these real assets (Labadie, 1989; Tsai, 2020). Making blind investments merely on the belief of this argument in itself is a very risky decision because a negative relationship was found by most of our research who analyzed this relationship. In order to protect our investors from such losses, it is important to check the impact on equities returns from inflation, based on selection through forecasting.

A lot of smart investors like Marc Faber and Warren Buffet believe that among the best-hedged stocks against inflation are the common stocks. Investors may protect themselves from inflation by making investments in common stocks. The matter of fact is that our theory claims that returns on equities will stay neutral to inflation because of the stock's rights on real assets of the business.

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Economists must not ignore corporate earnings when they deeply review the relationships between stock returns and inflation. In our macro-economic environment, firms can improve their revenues with an increase in inflation. This also means that with the increase in inflation, the nominal earning also increases, which helps the management to maintain the real earnings.

Until the 1970s, it was generally believed that inflation either might have a positive or neutral relationship with stock returns. The basis of that belief is Fischer hypothesis (1930) which states that a nominal rate of returns for an investor includes the stock's real rate of return and the expected inflation rate. However, besides all asymmetries, the selection/choice of stocks based on forecasting techniques may also play a very much important role in the returns ([Stickel, 1991](#); [Karolyi & Van Nieuwerburgh, 2020](#)).

Based on forecasting, [Nataraj et al. \(2020\)](#) are of the view that the investors may not remove the risk from the transaction, but they may elevate transactional success rate chances. Moreover, notable evidence steers to the argument that the choice at the reference level is the point of consideration, due to which preference reversals could be observed on the shift of reference type. This has been explained through the reference-dependent theory by [Hardie et al. \(1993\)](#), where the indifference curves' deformation in accordance with the point-of-reference. Usually, status quo biased investors set a specific reference level in the market to get again with minimum level of risk, as they don't want to be loss averse ([Mrkva, Johnson, Gächter, & Herrmann, 2020](#)). Martino, [Camerer, and Adolphs \(2010\)](#) conducted an experimental study to check the monetary loss-aversion on an amygdala basis, which has depicted focal bilateral-amygdala-cuts of infrequent two participants by utilization of task-streams of experimental economies. A variety of participant gambling activities were observed, which were having probability of loss and gains for measuring the relative sensitivity. Apart from the normalized ability to change reactive responses, interestingly, the dip in the level of aversion for loss compared to the controls matched was observed. This depicts that the prevention of tasks that lead to loss has been steered by the amygdala. Despite this, it is not the case all the time, as per the reflections of the study conducted in which they assumed that gains loom larger than losses ([Harinck et al., 2007](#); [Rakow, Cheung, & Restelli, 2020](#)). One of the researchers of this investigation was strolling with his companion on the road. His friend suddenly spied a 1 pound and picked it up from the street. The author asked his friend how you would react if you discovered. Instead, you had lost a Euro on the street. His friend answered he would not care too much about loss. This reaction is surprising due to it is based on the most influenced and replicated finding in research on individual decision making, and the human is loss-averse”.

[Tversky and Kahneman \(1991\)](#) show that misfortune abhorrence reflected in the prospect theory over money related result can clarify an assortment of information related to experiments in a like manner dependent on lotteries. Measurements of loss repugnance are by the nonattendance of an overall preference-based technique to inspire the utility for gains and misfortunes all the while. This investigation proposes the strategy and utilizations to quantify misfortune abhorrence in a test study. Consequently, it is the first to acquire a boundary-free elicitation of utility capacity through the prospect theory by covering the domain. This technique additionally gives a productive method to evoke utility midpoints, which are significant in cycle of probability and utility. The literature consists of a number of definitions' endeavours for loss-aversion. The cumulative and individualized lotteries do connect to loss-aversion, which reflects its multi-facet nature. Consequently, the tendency of loss-aversion is dependent on the kind of definition under consideration. Therefore, it's a high call for a standardized definition which further postulates that the variance in dependency for utility maximization in models cannot be assessed for their possible loss-aversion and vice versa.

Furthermore, it leads to the combine psychologically enacted cognitive strategies, cogent measurements of arousal in a physiological sense and an economic framework of behavior ([Sokol-Hessner et al., 2009](#); [Grayot, 2020](#)). Their study critically examines the loss-averse behavior in a variable environment of physiological correlates and intentional regulation strategy. The study advocates the idea that an intentional re-interpretive regulation strategy poses a singular and potent effect in reducing individuals' de novo levels of loss aversion. Moreover, behavioural loss aversion is structurally and correlatively linked with physiological arousal measure. The study comprehensively examined the phenomenon under discussion with empirical evaluation. Although the research treads on the path of emotions and human psychology in a real-time environment, a highly subjective

domain, yet it cogently met the goals of the research and expounded on underlying concepts and processes. Undoubtedly, thinking like a trader does decrease the individuals' loss aversion, as this research proves by two-pronged experimentation.

The results of their study corroborate erstwhile researches, which exhibited the concept of loss-aversion while presenting new empirical evidence, classifying and characterizing person to person differential and arousal correlative factors, coupled with elucidating the overall efficacy of conscious and planned regulation strategies which transpires into reduction of loss aversion on the part of an individual, physiologically and behaviorally.

Moreover, one of the important issues at the time of investment is to make rational and unbiased decisions. Likewise, people with status quo and loss-averse biases in the market usually perform limited number of transactions, based on which, miss so many good opportunities of the market. [West \(2020\)](#) stated that investors with excellent forecasting and analyzing abilities might perform rational transaction in the market in most cases as query arises as to how investors with the perception of status quo and monetary loss-aversion in the situation of amygdala damages and asymmetry during decisions regarding stock's investment, may make an efficient decision. One potential way is to do timely, in-depth analysis and forecasting for future investment.

However, in today's environment for investment, being a status quo is not an option to hedge losses in the market. [Rubaltelli, Rubichi, Savadori, Tedeschi, and Ferretti \(2005\)](#) stated that for loss-averse and status quo investors, the only way to hedge losses in the market is to use statistically symmetric data at the time of decision. Literature has discussed various tools, like forecasting, to choose the most optimum investment with a minimum level of risk. [Farooq and Sajid \(2015\)](#) discussed that in Pakistan, the status quo is one of the main causes behind irrational investment decisions in the market, as the status quo, investors usually don't bother. It is important to identify the approaches to investment during amygdala damages and asymmetries. One possible way is to perform past in-depth analysis with the incorporation of the current environment to make best possible future forecast.

Prior researches didn't find the antecedents behind these situations and also didn't propose an appropriate solution to such situations. The study is directed with an intention to attain the following objectives.

- To know about the irrationalities in investors at the time of stock's investment, having status quo and monetary loss-averse bias of investors at the time of amygdala damages and asymmetry
- To find out the ways to deal with the situation of irrationalities in investors at the time of stock's investment, having status quo and monetary loss-averse bias of investors at the time of amygdala damages and asymmetry.

## Literature Review

The continuous mistakes of cognition by the participants pave the way forward for non-positive instances in the interlock between the return on stock and inflation, as for adjustment absence in terms of adjustments for the nominal return and growth rates in comparison to the inflation projections. [Ang \(2008\)](#) presented that this kind of macro-economic uncertainty affected the ultimate market. In this situation, buying stocks would be protected against inflation and related repercussions. People usually do hedge because of the fear of loss. [Gomes \(2005\)](#) conducted a study on people who strongly prefer avoiding losses to acquiring gains. The study has predicted that most loss-aversion occurs due to an anticipated outcome rather than experienced outcomes. The study also envisaged that loss-aversion is a forecasting error. The study concluded that the loss-aversion could be reversed if the anticipated loss is greater than the actual one, so it can't be mitigated in totality. For this situation, [Kahneman and Tversky \(1980\)](#) earlier discussed prospect theory to explain the loss-averse bias of the individuals.

Most of the times in the market, investors bear the loss due to irrational and biased decisions regarding investment ([Jain, Jain, & Jain, 2015](#)). The current assets are not termed to be the basis for preferences by the general decision-making modulation ([Hardie, Johnson, & Fader, 1993](#)). This project underlines the vitality of individualized assessments that can be based on the assumptions from the Coase theorem, where the finalized provisions are not prone to transactional costs. It is indeed a

complex phenomenon as there is irrefutable evidence of vitality for initial entitling when the transactional costs are not apparent. This does take into account the dynamics of exchange rates of goods.

Investors usually set reference level in the market to achieve a specific benchmark and to minimize the probability of loss. [Kermer, Driver-Linn, Wilson, and Gilbert \(2006\)](#) conducted experimental studies show that loss-aversion is a reaction that is a result of an overestimation of the intensity and duration of their negative feelings. In the first study, fifty-four participants (33 females & 21 males) were made to play a gambling game with 44 trials, with the help of a computer ranking card suits. Criteria were set according to which participants won or lost in the game. After playing the game, participants reported how they felt about loss or gain "right now". Some of the participants were assigned the role of experiencers, while others were assigned the role of forecasters, who simply had to watch the computer play. The forecasters were later asked how they felt had they been playing the winning or losing game. The results showed that forecasters were loss averse. They predicted the negative feelings and they might have had when they play if they had lost. Loss forecasters predicted how unhappy they would have felt at all points of the game, whereas gain experiencers showed no more happiness than the loss experiencers. And the second study tested whether the results of the first study would be repeated in a more favourable scenario for the participants. In that study, participants first forecasted how they would feel by winning or losing a gamble and later reported how they actually felt after having won or lost the gamble. In the second study, fifty-one students, with 35 females and 16 males, were asked to participate and answer filler items based on how "happy, pleased, disappointed, and sad they felt right now." They were asked to report their immediate reaction, and also how they would feel 10 minutes later. The participants, who had predicted their thoughts initially, reported their thoughts after the game. The study concluded that disappointed and sad reactions of participants were reverse scored and averaged with how happy and pleased they felt. The participants' baseline effects were subtracted from their forecasted or experienced effects in order to acquire the results.

Interestingly, both the participants were having feelings of happiness based on the view that their projections were correct in terms of loss or gain. The studies revealed that the participants, in their affective forecasts, displayed loss aversion. The study also discusses that initial feelings of severe stress and anxiety at the thought of losing were proved to be wrong by the studies, as they did not feel as much dejected as they had estimated. It confirmed that people overestimate the hedonic impact of the losses. It is not only subjected to gambling but any other event of life where a person faces a loss, e.g., losing a job, getting unwanted results of pregnancy, losing a loved one etc. The failure of the people in understanding or acknowledging how well they can cope with their losses keeps them from taking chances. They readily believe that a loss would affect them a lot more than gain. This results in people hovering in a static situation, where they experience neither of the positive feelings.

In addition to this, the inculcation of loss aversion plays its role when one is making choices for others ([Polman, 2012](#)). In his study, it was depicted that the unreasonable choice steers the decrease of loss-aversion, as it is associated with the social factors affecting the gambling dynamics. A similar pattern was observed when responsible decision making was applicable, but the monetary stakes were high. This was repeated in multiple cases where people were prone to reasonable and definite choices.

In terms of aversion, [Brenner, Rottenstreich, Sood, and Bilgin \(2007\)](#) discussed two types of theories loss aversion and gain aversion, which is related to the endowment effect. In loss aversion and gain aversion, there are two types: one is possession, and the other is valence. In possession, we talk about the ownership or taking custody or hold of an asset. The loss of possession is termed as the absence of its holding, irrespective of the appeals associated.

Additionally, the desired gain (e.g., when an employee receives a smaller salary raise than everyone else in a workplace, she may view it as a loss, even though it has improved her position in absolute terms). But, both (PLA & VLA) impact human behavior and their moods in different ways, e.g., selling, Money budget, spending, saving, exchange of items and target transactions etc.

## Methodology

This research uses the qualitative style to apprehend the candidate’s views widely. It was sure that neither was any data provided; preceding to the candidates and nor was any view shared concerning probable replies. In this research, discussion-based multi-case study technique (Eisenhardt, 1989; Eisenhardt & Graebner, 2007) used, wherein data collected by partially planned discussions, to catch thorough veracities about the investors of the financial sector. Many cases make available the chance to classify the patterns and elementary relations by the close by check of themes and signs. The case study etiquette (Haddock-Millar, Sanval, & Müller-Camen, 2016) is given in Table 1.

The main queries of the discussions beached on the theme of the study – see about Status Quo, Monetary Loss-aversion and Forecasting during Amygdala Damages & Asymmetry towards investment in the securities. This research is able to determine varied viewing platform that was condition overt, letting a relative collapse of strategies to the use of Analysis (on the basis of high level of consciousness and market data) fair before managing the situation wherein investor attempt to invest having Status Quo, Monetary Loss-aversion and Forecasting during Amygdala Damages & Asymmetry.

For this research, the securities professionals in Pakistan were made the population for this study, as it was easy to catch the majority of investors and experts under one roof. Partially-planned discussions escorted to extract all-out material. Also, for this research, 50 discussions were settled, and most of them gave complete and balanced replies as per the condition of the study.

**Table 1.** Case Study Protocol

S. No	Case study steps
1	Credentials of research importance and scope
2	Credentials of distinct assets to become ‘several illustrations’
3	Additionally, the development of research queries
4	Credentials of appropriate research tools and procedures, reckoning qualitative data collection methods, for instance, partially-organized discussions and focus groups
5	Credentials of ‘fitting’ contributors: a standing and equivalent portion of the case studies with the participation of environmental and HRM/growth skills
6	Data gathering period: January 2020 to September 2020
7	Data check: enclosed by the condition at solitary subsidiary level
8	Development of all-embracing
9	Support of the literature
10	Accomplishing end: literature and data ampleness achieved
11	Dissemination: report and article development

**Table 2.** Discussion Respondents

Job Role	No. of Responses
	<b>Category</b>
Stock Experts and Brokers	15
Investors of the Stock Market	35
Total participants	50

Job roles in Table 2 reveal that entirely the stock experts and brokers have enough info about investing in securities and the way of forecasting for investment, and the general ups and downs of the market. Whereas investors of the stock market think that they have enough information for the investment, and they can make efficient decisions in every situation, but this is not the case. Moreover, this study arranged partially organized discussions with investors just to confirm the responses of experts and brokers.

The key discussion questions are taken from the current literature in the areas of status quo bias, monetary loss-aversion, forecasting and investment. The discussion questions are provided in Table 3.

The discussions started with an all-inclusive chat of the investor’s biases during stock’s investment, the way of forecasting for the investment, and defence of various adverse situations during

the process of investment. The discussions then moved into the particular areas documented in the literature. The one-to-one discussions insistent between 20 and 35 minutes and up to 45 minutes for each individual.

## Discussion Protocol and Queries

### Discussion Protocol

- Make known to the questioner/s and partaker/s
- Design the way of study
- Design the purpose of the research, having goals and purposes
- Contrary likely study consequences, principled subjects and get consent
- Design arrangement of the discussion/interview/focus group

## Study Themes and Definite Queries

### Investor's Biases

1. What are the foremost categories of biases that may exist in the investors towards stock's investment?
2. May you kindly share the several effects of biases on the revenues?
3. To how much extent, stockholder's tactics are persuaded by the directions of governing bodies?

### Monetary Loss-Aversion and Forecasting

1. What are the key epistemological reasons behind the monetary loss-aversion of investors?
2. Why forecasting towards investment is beneficial for the growth of the investors?
3. How may forecasting increase the probability of success in investment?

### Investor's Psychological Insights

1. May you kindly outline few very domineering psychosomatic perceptions of the investors during investment in the stocks?
2. To how much extent investors may realize that they are biased? Do they want to outfit their issues of biasness? What part do you play in these kinds of situations? What are the effects of your role in a definite condition?

### The sensitivity of the Stock Market

1. How subtle is the market of financial securities?
2. Which level of efficiency (weak, semi-strong & strong) may be present in the stock market?

### Risk-Taking Tendency of Stockholders

1. Do you think that majority of stockholders are status quo and loss-averse? If "Yes", then how do you may bolster them in the way of risk-taking attitude?
2. Oblivious stockholders may take what's more high risk or low risk?

### About You

1. What kind of information is significant for you on the way to analysis for stock's investment?
2. What do you see as the main wheels to make convincing investment with cognizance?

## Results & Discussion

### Investor's Biases

As per the responses of experts, few investors believe in the status quo, while a majority of the



investors are loss-averse in the market, as people habitually feel the discomfort of loss in excess of the pleasure of gains. Loss aversion takes hold when an individual memorize an [investment portfolio declines](#) more intensely than gains; occasionally, even when the gains are better ([Barberis & Huang, 2001](#)). It affronts people if they are unable to find money when the market goes down.

Therefore, the significant query revolves around the source of loss aversion in terms of true expressiveness or the lack of judgment. For this, the understanding of loss-aversion needs a shift, as depicted in the research work done by [Novemsky and Kahneman \(2005\)](#). So, the buying and selling patterns under the probability case project that caution is to be exercised otherwise. The cognitive and emotional dimensions were studied for loss aversion. The cognitive part attaches reasoning, and the emotional one connects to the involvement factor. [Ariely et al. \(2005\)](#) further investigated these dimensions for argumentation on 'why loss appears to be greater than gain' and how loss-aversion is being evolved. The work of [Camerer \(2005\)](#) drives the research-based discussion towards the addition of new factors like policy and legal regulations that would provide the answer to the questions that whether loss aversion loss-aversion is connected to overreaction because of loss, judgmental error or preference composition.

Moreover, [Haigh and List \(2005\)](#) suggest that expected utility theory may not model professional trader's behavior well, and this finding lends which are beginning to relax inherent assumptions used in standard on the communication strategies for fund manager whereby revealing information on a less frequent basis means that the likely hood of incurring a loss is reduced.

Moreover, human beings are prone to be biased. Our understanding form who we are and our race, civilization, gender, height, weight, sexual orientation, place of birth, and other factors do influence the lens with which we view the world. So, various kinds of biases of individuals in the market may affect the revenues of individuals and the market as a whole in various ways ([Bearden, Murphy, & Rapoport, 2008](#)).

Towards getting revenues and make the market rational and stable, governing bodies like the Securities and Exchange Commission of Pakistan (SECP) make policies for the investors. But only rational investors may follow these guidelines. However, the majority of investors in the market are biased to some extent.

### Monetary Loss-Aversion and Forecasting

As per the experts, the majority of us are immoral at timings of the market, and the significance of trading stocks as they twitch to dip inclines us to be locking in losses instead of evading them. People who are particularly emotive and loss averse are further probable to make the error of unnecessarily selling assets and converting to cash in a down market ([Duxbury & Summers, 2004](#)).

Experts and investors both says that optimal information is necessary for forecasting. To illustrate, [Roediger and Pyc \(2012\)](#) focus on presentations of probabilistic information that accompany forecasts.

Based on forecasting, you may predict future events to some extent. Forecasting permits businesses to well design their succeeding steps. You won't just be surviving from day to day – you'll be able to more precisely comprehend what you want to do to raise.

A well-researched and thorough forecast, preferably one that is supported by market leanings, truths and guesses, can assist you to convince to make rational, timely and smart investment ([Goodman, Neamtiu, Shroff, & White, 2014](#)). This confirms that you don't wandering distant from the path, and achieve all your customary goals. Forecasting can support you well accomplish your investment preparation by stopping blockages that could lead to damage.

### Investor's Psychological Insights

Numerous market critics normally throw around ideas such as 'Fear and Greed' and how contributory they are in the conduct of persons and markets as a whole. Though both fear and greed play a part in discrete and mass behaviors, they are part of an ample greater set of attitudes and sentiments that disturbs our investment choices ([Baker & Wurgler, 2007](#)).

In order to address our biases, we must primarily find them. Once we are alert of any biases we harbor, we have the courage to alter our means of thinking. Another obliging method in disabling

biases is practicing mindfulness: Just be alert when we have a biased thought. Pay consideration to what we are thinking. Thought consciousness can help us remove bad thinking and replace it with constructive pictures.

Biased propensities can also touch our professional lives. Biases can also cause us to make unfair decisions regarding a protected class, which can result in criticisms of discrimination being filed against the company or institution ([Landy, 2008](#)).

### **Sensitivity of Stock Market**

Stocks are considered to be as long-term equity instruments, but in Pakistan, this is not the case, as majority of investors are not too much habitual. They don't have high level of patience and also no clear picture towards investment.

Moreover, the stock market of Pakistan is weak level efficient for some time and semi-strong form efficient for some time. However, it was strong form efficient to some extent during the period of 90's.

### **Risk-Taking Tendency of Stockholders**

Usually, most of the investors are loss-averse in nature as they don't want to take any sort of risk. Whereas few of the conscious investors are status quo in nature. Rational investors neither be status quo nor be monetary loss-averse, as they know about the ups and down of the market. This rational approach primarily comprises of two things, first information about the opportunity of investment and second, their personality. Each investor may have different tendency to be a risk taker or averse and hence behave differently. Such behaviors, where personality of investor plays important role, create issues in the stock market and create ups and downs which are not realistic ([Mayfield, Perdue, & Wooten, 2008](#)).

### **Conclusion**

This study tried to understand the investors decision making process and understand the biases that may play a role in amygdala damages and asymmetry. The focus of the study revolved around status quo and monetary loss-averse bias of investors at the time of amygdala damages and asymmetry. Further, how investors try and deal with such biases during decision making is also studied. The results indicate that in addition to previously studied factors, emotional attachment and cognitive perceptions of the investors regarding loss are important to understand the biased behavior. The reason for a loss to be weighed more or less is due to the emotional attachments of the investors where they believe that their psychological needs may not be fulfilled if the loss occurs ([Frisenna and Rizzotti, 2020](#)). Simultaneously, the investor also thinks about the rationale behind the loss and how they will come up with the losses.

The second important question raised in the study was regarding the response strategies of the investors and how they can prevent themselves from biased decision making. Even though, interviewers as well as previous research as mentioned in the literature do believe that some time these biases may play in better decision making, but the probability is low hence less biased decision is always desired. So, the first and foremost thing to consider is "*to identify our biases*". Unless an investor knows about the reason for which s/he feels committing to a particular investment opportunity, it will be hard to take a rational decision. After one has identified the biases then they can try and mitigate that with the help of more information and understanding of the opportunity. Further, investors may be groomed to overcome the status-quo, monetary loss aversion due to their personal biases ([KILIÇ & ACAR, 2020](#)). This will allow a better forecasting result leading to a stable stock market.

Finally, most of the investors are also unaware of their biases and think that the decision making is rational. This leads them to overthink and behave in irrational way to save their interests. Such behavior creates disruption in market, and it becomes hard to forecast the future gains. Such behaviors shall be controlled by training and grooming the investors ([Abendroth & Richter, 2021](#)). Future studies can also look into longitudinal investigation of investor's behavior before and after trainings are provided.



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