



TITLE: STOCK MARKET ANALYSIS

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Answer all the following questions in 5 to 10 bullet points

PROBLEM/PAIN POINT/OPPORTUNITY IDENTIFIED

Explain the Problem/pain point (or) Opportunity Identified with quantification of problem and some research data

1. Fear Behind Current Investor Sentiment
2. Accuracy when estimating
3. Questioning the Legitimacy of Your Brand's Promises
4. The need for constant follow-up
5. Assigning accountability
6. Providing feedback
7. Implementing Investor-Centric Branding

BRIEFLY DESCRIBE THE SOLUTION/ INNOVATION TO ADDRESS THE PROBLEM/OPPORTUNITY IDENTIFIED

1. Analyse multiple data sets and achieving accuracy in predicting the stocks
2. By testing the product multiple times and using various datasets the accuracy of the product can be improved. Though one shall realise that a Machine learning project cannot be 100% accurate.
3. One strategy that you could lean on to provide ample visibility, without the influx of large advertising budgets, is to use social media. Social media can prove an effective platform to engage, secure, and retain investor relationships on a broader audience level.
4. Organizing data for the better understanding of your accuracy.
5. Need of follow-ups is to take the customers feedback and improve our project . Customer needs a way to reach the company , hence he needs a feedback system . This show's the companies seriousness towards it's employees.

HIGHLIGHT THE UNIQUENESS/INNOVATIVE COMPONENT OF THE PROPOSED INNOVATION/SOLUTION

- Giving notification alerts daily to keep the users updated on the status of the stocks at that moment.
- Chatbots can make it easy for users to find the information they need by responding to their questions and requests—through text input, audio input, or both—without the need for human intervention. The latest AI chatbots are often referred to as “virtual assistants” or “virtual agents.”
- Adding a news feed that contains the stock related news can help the users gain extra information.
- Giving introductions to stock market investments as in where to start, how to start and everything.
- Keeping a check on the trend of a particular stock, how it varies over a span of time.
- Comparing various companies in a particular field to get the best of all.

DESCRIBE THE TECHNOLOGY INVOLVES AND TECHNICAL FEASIBILITY FOR THE PROPOSED INNOVATION/SOLUTION

1.FrontEnd: Used for UI/UX and the overlook of the project

- >HTML

- >CSS

- >JavaScript

- >React

2.Backend: The part of computer that operates a website which cannot be seen or changed by the user

- >MongoDB

- >Express.js

- >NodeJS

3.Machine Learning: Data Processing, Model Training, Model creation for given no of sets

- >Python

- >numpy

- >scipy

- >sklearn

- >pandas

- >Matplotlib

HIGHLIGHT IF ANY INTELLECTUAL PROPERTY (IP) COMPONENT ASSOCIATED WITH THE PROPOSED INNOVATION/SOLUTION.

- 1) The dataset's legal protection, before it is ultimately used to offer customers with information.
- 2) Copyright and related rights are required for the dataset to be taken from NSE, the National Stock Exchange of India.
- 3) The company may become vulnerable to rivals developing a way around the patent if the patent is publicly disclosed.
- 4) Unlike patents and copyrights that might expire, trademarks in India are protected by a combination of specific statutes (such as the Trade Marks Act 1999) and auxiliary legislation that offers additional protection.
- 5) Since the product's appearance can be reproduced and is essential to its commercial success, design protection is necessary; therefore, a registered design should be filed.

DESCRIBE THE BUSINESS POTENTIAL OF THE PROPOSED INNOVATION/SOLUTION INTO VENTURE/START-UP

1. We are comparing various stocks and giving the customers options as to where to invest. We can turn this into business model for our project.
2. We have a chatbot which assists the user regarding any queries they are facing. This can help us reachout to our customers as a startup and know their complaints.
3. We will be having time-to-time feedback sessions to know the problems in our projects, to know where we need to improve. This is one of the most important things for a startup to move ahead and evolve itself with time.
4. We are providing demos to beginners who want to start investing in stocks. This will help the project get a boost as a start-up and increase our overall businesses.
5. We will be providing news notifications about the variations of stocks and any leads on any company investing large amount of money in a particular stock.

HIGHLIGHT THE MARKET POTENTIAL FOR INNOVATION/SOLUTION

Market potential is an evaluation of the sales you can expect from a product or service you plan to offer in a market - the calculation factors in the size of the customer base and the demand.

Market potential always represents the upper limit of the market-in other words, the optimal outcome. You start by estimating market potential per sales volume and then calculate revenue.

Market potential=Market size x unit price. There are roughly 3% people of the population of India who invest in stocks and close to 4.10 crores.

Hence the people visiting the site would be large and thus ads will give us the revenue at around 10\$ per day or 500\$ per month.

EXPLAIN THE CONSTRAINTS/RISKS ASSOCIATED WITH THE INNOVATION/SOLUTION AND STRATEGY TO TACKLE THESE

- 1) market risks
- 2) Liquidity risk
- 3) Concentration risk
- 4) Credit risk
- 5) Inflation risk

Solution for the risks:

- 1) Diversify your portfolio - If you want to enhance your chances of profits, it is important that you diversify your portfolio. You should not invest all your capital in a single asset.
- 2) Understand the trend of the market - You can specifically do a quick technical analysis to determine the trend of the market and then ride the profit train.
- 3) Always use a Stop-Loss – it stops your losses at a pre-determined price. This will help you managing your risks well. Stop-Loss is only for intraday trading.

IMPLEMENTATION PLAN WITH TIMELINE TO CONVERT THE INNOVATION/SOLUTION TO A VENTURE/STARTUP

Our aim is to create software that analyzes previous stock data of certain companies, with help of certain parameters that affect stock value. We are going to implement these values in algorithms and we will be able to decide which algorithm gives the best result. This will also help us to determine the values that particular stock will have in near future.

Regressions

Microsoft Excel uses built-in software to help users run linear regressions. Our team used Microsoft Excel due to the fact that we had reason to believe that a linear relationship existed between two variables.

Regressions vs. S&P 500 In running regressions between search volume and S&P 500 data, our team first had to collect data. This was done through finding publically-available data online. Many financial investing platforms offer the ability to download historical stock data.

Percent Change: The equation to run percent of change on week-to week data sets is: $\text{Percent Change} = (\text{Week (New)} - \text{Week (Old)}) / \text{Week (Old)} \times 100$.

Our team was mainly concerned with the t-statistic and the p-value provided in the summary output to prove if a keyword was significant or not. The t-statistic is used to compare two different sets of values, where it uses means and standard deviations of two samples to make a comparison.

TEAM COMPOSITION AND COMPETENCY AND SKILL SET TO TURN THE INNOVATION/SOLUTION INTO START-UP

Our team is divided into 4 categories varying from UI/UX designers to Backend Developers and Market analyst and Publicity management

Team Composition:

1 UI/UX designers - Basically to attract the customer who visits the site to explore the site2

2 Backend developers- To design the software that operates the website.

1 Market analyst-To analyze the market trend.

1 Publicity Management-To make a plan on how to take the project to the customer.