



START IN TO START UP

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Abstract: As we know in India process of finding investors for startup is very slow and struggling. We are building an online platform to establish business community network using Machine Learning and business analytics. The platform will help the entrepreneur and startups to establish a network with the investors. And it will be an easy path to connect investors for their business.

IndexTerms - Startup, Machine Learning, Visualization, Entrepreneurship, Investor, Recommendation System

I. INTRODUCTION

In 2021 India became 3 trillion economies, the main reason behind it is startups are evolving day by day. India is aiming to become 5 trillion or more economy country in upcoming years. To become 5 trillion or more economy country India has to improve his startup success rate. Because startup success rate directly impacts to the GDP growth of the country.

According to recent reports India has large number of startup failure rate. The main reason of startup failure in India is that India has no platform where startups can find the investors for their business. In World of IT India is still following the traditional way to find their first investors, due to this the process of finding investors for startup is very slow and struggling. And so, India startup fail due to lack of funds.

To overcome this problem, we are building a online platform to establish business community network using ML and business analytics. The platform will help the entrepreneur and startups to establish a network with the investors. And it will be a easy path to connect investors for their business.

Where startups will showcase their ideas and business scopes to attract the investors around the world to invest in their startup's. Also, in this platform investors will be able to connect with startups to invest as per there interest. Were all the business-related information will be showcase with the help of Data Visualization and ML to attract the investors and to less the workload of both investor and startups.

II. LITERATURE SURVEY

This study aims to identify factor effecting fund-raising value by applying empirical study using non- fiscal information data from incipency in ASEAN. We uniquely hand- collected the data from 211 deals in 6 ASEAN countries. 14 parameters had been primary linked as factor effecting fundraising value from literature review. Factor analysis reduces parameter from 14 to 7 factors and direct retrogression result suggested that Experience (EXP) and Education (EDU) of entrepreneur characteristic, Size (SIZE) and Team absoluteness(platoon) of association specific are appreciatively impact fund caregiving value. To maximize fund caregiving value, entrepreneur should have high experience and education whereas incipency company should have substantial size with full function of operation in the administrative platoon.[2]

Bout ninetieth of startup implementation in Dutch East Indies failed thanks to the product and markets incompatibility and also the funds that run out. The Agency of artistic Economy targets to reduce failure rate to seventieth as a result of startup delivers various contributions to spice up the digital economy. so as to realize the target, a holistic understanding of things that influence startup's property research aims to spot and analyze those factors with the mixed methodology approach. Literature review and knowledgeable judgment are combined to produce the abstract model with eleven hypotheses in five dimensions: Finance, Organization, Product, Market, and External surroundings. one issue particularly Minimum Viable Product (MVP). By investment those factors of mvp, startup will perform the required ways to develop their business and avoid the failure.[3]

In this paper we probe whether statistical literacy algorithms can be effectively stationed in an Intelligent Decision Support System (IDSS) to reduce idiosyncratic threat in private equity investment opinions. This is particularly desirable in light of the new Equity Crowd Funding (ECF) private equity investment class created by the JOBS Act, since the Act opens up private equity investment to non-accredited investors who are not inescapably experts in the private equity due industriousness process. By comparing confusion matrices of 6 statistical literacy classifiers, we show that logistic retrogression can nicely distinguish between investments that yield rates of return that are seductive, intermediate, or poor. These results also demonstrate that an Intelligent Decision Support System grounded on statistical literacy can effectively reduce the idiosyncratic threat essential in Equity Crowd Funding and other private equity investments.[4]

Financial Technology (Fintech) is one of the fastest developing diligences of our time. New company structures are arising with veritibly innovative features. Recent exemplifications, along with their innovative investment structures, are reflected in incipency

backing juggernauts that use a technology called blockchain. This composition targets a broad followership without getting deep into specialized, provident or legal slang. The reason for this approach is to explain the rearmost conditioning in fintech, without getting lost in all the oddities. The authors assume that the general public struggles to keep pace with specialized, legal and social media developments and that it's challenging for individualities to orient themselves in the jungle of media load, fake news, swindles and annoying pixies. This composition is the alternate part of a Financial Technology series, agitating backing and organizational structures of new digital companies and blockchain gambles. This is the alternate composition following, "The Right Path to Funding Decentralized Associations" 2 where we explored the dynamics of backing startups and new entrepreneurship.[5]

In this paper it says that the internet has increased the ability of various domains to interact and share important information during the past few years. As it is said, everything has advantages and disadvantages. As a result, data extraction challenges and information overload accompany domain expansion. The suggestion system is crucial in addressing this issue. With its quick and logical suggestions, it improves the user experience. This study outlines a method that provides users with generalized suggestions based on the popularity and/or genre of a film. Different deep learning techniques are applied to the implementation of the Content-Based Recommender System. This research also provides insight into the challenges that the content-based recommendation system faces, and we have worked to address those challenges.[6]

III. TERMINOLOGIES

1. Python: A high-level, all-purpose programming language is Python. In order to emphasize code readability, its design concept emphasizes explicit indentation. Python has garbage collection and dynamic typing. It supports a variety of programming paradigms, including functional, object-oriented, and structured programming.
2. Flutter: Google produced the open-source UI software development kit known as Flutter. It is used to create cross-platform software for Windows, Linux, macOS, Android, and iOS.
3. Dart Language: Flutter runs on the Dart virtual machine, which has a just-in-time execution engine, while an application is being written and tested. Due to the quick compilation times and "hot reload" capability, changes to source files can be injected into an application that is already running.
4. Machine learning: This area of research enables computers to acquire knowledge without being explicitly programmed. One of the most intriguing technologies that has ever been developed is machine learning. The ability to learn is what, as the name suggests, gives the computer a more human-like quality. Today, machine learning is being actively used, possibly in a lot more places than one might think.
5. Data visualization: Data visualization is the display of data using standard images like infographics, charts, and even animations. These informational visual representations make complex data relationships and data-driven insights simple to comprehend.
6. Flask API: Flask API is a well-liked micro framework for creating web applications. It is a micro-framework, making it incredibly simple to use and devoid of the majority of sophisticated features.

IV. USER RECOMMENDATION MODEL

1. Noise Reduction: The process of content-based filtering includes noise reduction, which helps to increase the precision and usefulness of recommendations. In order to produce suggestions, content-based filtering compares objects (such as goods, articles, and movies) based on their content characteristics (such as genre, keywords, and tags). The quality of suggestions might be significantly impacted by distracting or pointless content elements. Choose pertinent features for the similarity computation. Standardize and eliminate superfluous words from text data during text pre-processing. Setting criteria for content features will help you weed out noisy data. Organize comparable items into clusters to cut down on noise and duplication. Scaling content features to a common range will cut down on noise. Identify and get rid of outliers in content features using outlier detection. Data cleaning: Update and delete out-of-date or unnecessary information on a regular basis.
2. Content Based Filtering: This method sorts the things according to the user's preferences. It provides results based on previous user ratings. The Vector Space Model (VSM) is the modelling technique used for this strategy. It presents the idea of TF-IDF (Term Frequency-Inverse Document Frequency) and determines the similarity of the item from its description.

$$Tf(t) = \frac{\text{frequency occurrence of term } t \text{ in document}}{\text{total number of terms in document}}$$

$$If(t) = \log_{10} \frac{\text{total number of documents}}{\text{number of documents containing term } t}$$

There are three ways to determine how similar two item vectors are:

1. Cosine similarity
2. Euclidian distance
3. Pearson's correlation

Cosine similarity:

The angle of cosine between two objects is measured using cosine similarity. It compares two papers on a scale that has been normalized. Finding the dot product between the two identities will help.

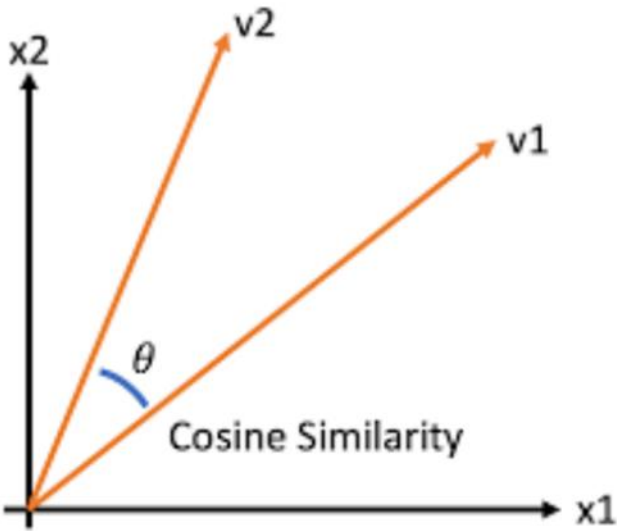


fig 1. cosine similarity.

The angle between v_1 and v_2 is shown in the following diagram as being. More similarity exists when the angle between the two vectors is less. It means that if there is a little angle between two vectors, they are practically identical to one another, and if there is a high angle, the vectors are quite dissimilar to one another.

V. SYSTEM FLOW

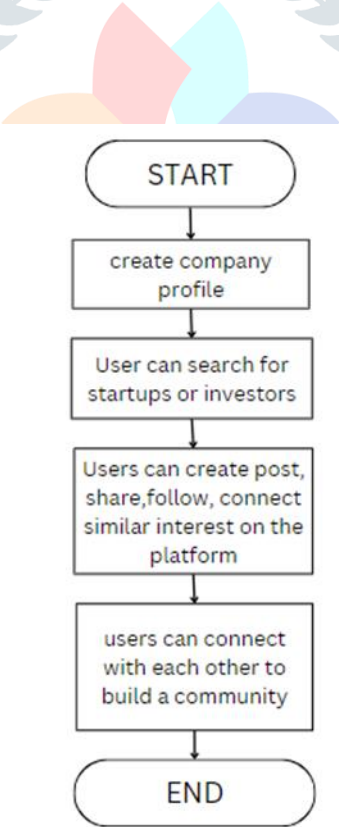


fig 2. system flow.

VI. RESULT

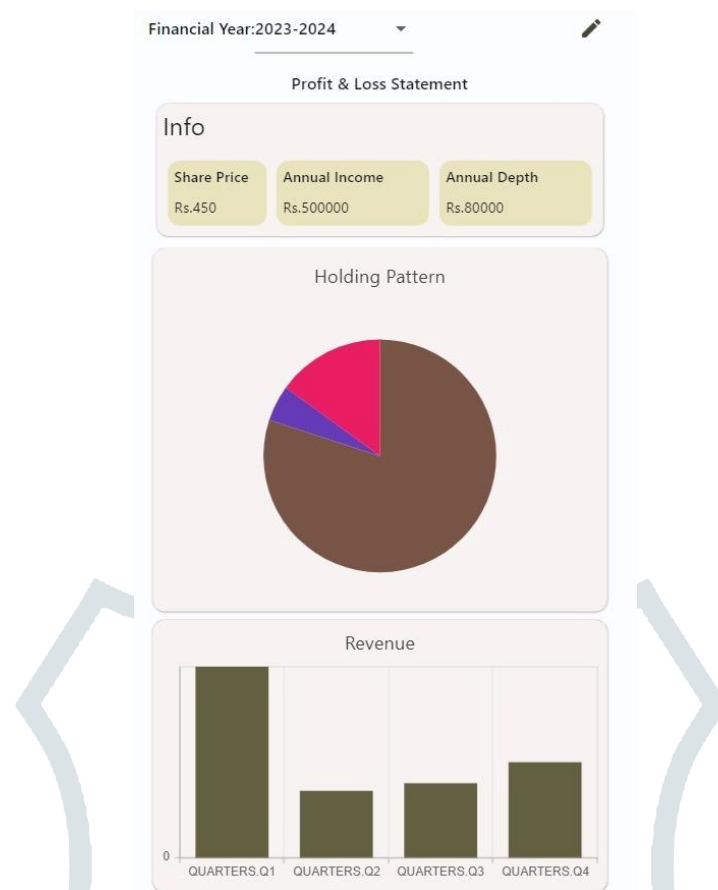


Fig 3. visualization models result on frontend.

VII. CONCLUSION

With the help of this application entrepreneurs and startups will be able to build their professional connection with big investors around the world. Startups are a machine learning and business analytics-based application. It is a social platform where startups can showcase their business in front of investors and will try to build more and more network with investors. Startups will be able to market their products and services to raise funds. Both startups and investors will be more productive and successful together. This application will improve the success rate of startups in India by solving the problem of finding investors for raising funds.

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