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Startup Business Details Using Recommendation Algorithm

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Abstract: ***High market uncertainty impedes an entrepreneur's ability to evaluate the state of the market for a business opportunity. For many entrepreneurial ventures, data collection and analysis techniques and technologies are becoming an important source to manage uncertainty. This trend is often referred to as "data- driven entrepreneurship." We consider a dynamic approach using data to overcome market uncertainty for business opportunity- related evaluations. In particular, we examine the entrepreneur's investment portfolio in which each investment generates expected returns and some information about a specific aspect of the market for a single business opportunity. We develop a model that analyzes imperfect market data (e.g., financial, social, regulatory), while factoring in the entrepreneur's risk preference and operational shortages of resources, routines, reputation, and regulations. Our numerical findings show that, rather than pursuing the highest expected returns, an entrepreneur may choose perfect information, risk hedging, or market-controlling investments based on his/her cash level and risk preference. Hence, the entrepreneur, fueled by the availability of data analysis, could overcome uncertainties and obtain better insights for business opportunity decisions.***

Keywords: Business opportunity evaluation, decision making under uncertainty, data-driven entrepreneurship, entrepreneur- ship, operational entrepreneurship, operations management (OM), partially observed Markov decision process(POMDP**)**

1. Introduction

New businesses are recently conceived organizations which battle for presence. This paper attempts to conceptualize the marvel and perceive the difficulties they may confront. This paper looks for a decent proportion of new business execution, and afterward clarifies this measure by different measurements of business procedure. In this manner, an ever increasing number of associations and people would like to store their information in the cloud. Be that as it may, the information put away in the cloud may be adulterated or lost because of the unavoidable programming bugs, equipment issues and human mistakes in the cloud . Keeping in mind the end goal to check whether the information is put away effectively in the cloud, numerous remote information respectability examining plans have been proposed. In remote information honesty reviewing plans, the information proprietor right off the bat needs to produce marks for information obstructs before transferring them to the cloud.

2. Model

Consider an entrepreneur who is evaluating the business opportunity for a market in a multi period setting. The state of the market—whether the market has a positive or negative out- look for the entrepreneur's opportunity—t depends on a variety of external market factors such as economic, governmental, social, and regulatory that may not be directly observable and may change overtime. Furthermore, the entrepreneur's risk preference and operational shortages of one or more of (i.e., internal constraints) influence the entrepreneur's ability to observe the state of the market and take control over market changes.

To exemplify the impact of an external factor on opportunity assessment, we offer a simulated example of an entrepreneurial venture in a developing industry (e.g., clean energy). The entrepreneur may not have established know-how of external market regulations and lobbying practices for the technology (i.e., shortage of external regulations). Although the new venture's investors may provide some policy and regulatory assistance, the regulations for an emerging technology may be transient, which is likely to result in a hidden market. Therefore, he or she might not be able to fully evaluate the true economic outlook—positive or negative—without understanding the regulatory conditions, particularly among the rapidly changing laws surrounding energy. Information about the state of regulations and policy is needed to evaluate the valuation of the market for the clean energy innovation through hiring legal services, lobbying practices and active participation in discussions about pending regulations.

A. *POMDP Model*

We let Z_t denote the state of the market at period t. The Markov chain $\mathbf{Z} = Z_t; t = 0, 1,...,$ is a hidden process with the transition matrix

$$Q_t(a,b,U_t) = P(Z_{t+1} = b | Z_t = a, U_t) \quad (1)$$

Overastate space $F=a,b,c,\ldots,s.^1U_t = (u^1,u^2,\ldots,u^m)$ denotes the portfolio for m investments at period t, where $u^k(0)$ represents the allocated investment amount for investment $k.^2U_t$ influences the transition states because Q_t depends on the investments of the portfolio. The states of the market are not observable; thus, the entrepreneur's portfolio of m investments generate random netreturns.

B. Sufficient Statistics

The entrepreneur relies on information from past periods in our multiperiod model. In particular, since energy

regulations are shaping over time, the entrepreneur may need to invest in multiple periods. A new observation at period t will increase the dimension of the information vector with a new observation Y_t, therefore, the probabilistic structure of the information flow increases the dimension of the problem with each period. To monitor the increasing dimension, we utilize sufficient statistics, a common approach used under these circumstances,that represents the probabilistic structure of the information flow.

The entrepreneur can update initial conditions with the emission matrix at period $t = 0$.

Updating can be viewed as gathering information about the positive or negative outlook of the market for the business opportunity.

C. DP Model

In our model, the entrepreneur maximizes the expected returns at a terminal time T by selecting the investment portfolio. To develop the entrepreneur's dynamic problem formally, we let $g_t(\pi,x,u)$ denote the returns gained from an investment port- folio u constrained by available cash funds x in period $t$and optimal portfolios $u^*$from $t+1$ to T. Also, the probability of the information flow in the market (i.e., sufficient statistics) is denoted by π.The solution can be found with are cursive solution procedure and a complete emission matrix.

3. Methodology

Recommender systems typically produce a list of recommendations in one of two ways – through collaborative filtering or through content-based filtering (also known as the personality-based approach).Collaborative filtering approaches build a model from a user's past behavior (items previously purchased or selected and/or numerical ratings given to those items) as well as similar decisions made by other users. This model is then used to predict items (or ratings for items) that the user may have an interest in. Content-based filtering approaches utilize a series of discrete characteristics of an item in order to recommend additional items with similar properties. These approaches are often combined (see Hybrid Recommender Systems.

Diversity
Users tend to be more satisfied with recommendations when there is a higher intra-list diversity, e.g. items from different artists.

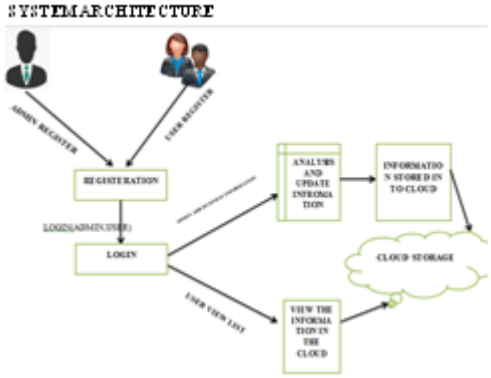
Recommender persistence
In some situations, it is more effective to re-show recommendations, or let users re-rate items,than showing new items. There are several reasons for this. Users may ignore items when they are shown for the first time, for instance, because they had no time to inspect the recommendations carefully.

Robustness
When users can participate in the recommender system, the issue of fraud must be addressed.

Labelling
User satisfaction with recommendations may be influenced by the labeling of the recommendations.

Privacy
Recommender systems usually have to deal with privacy concerns[56] because users have to reveal sensitive information. Building user profiles using collaborative filtering can be problematic from a privacy point of view.

System Architecture:



System Requirement

General
These are the requirements for doing the project. Without using these tools and software's we can't do the project. So we have two requirements to do the project. They are

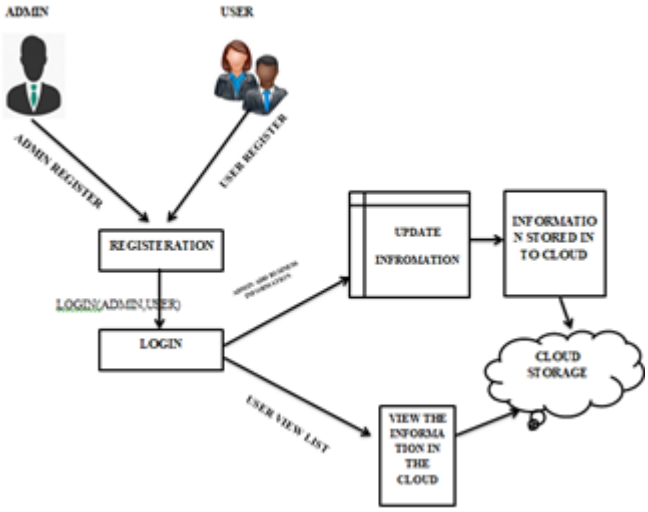
1) Hardware Requirements.
2) Software Requirements.

HARDWARE:

PROCESSOR	:	Intel Core i3.
RAM	:	4GB DDR2 RAM
MONITOR	:	15" COLOR
HARD DISK	:	100 GB

SOFTWARE:

Front End	:	ANDROID XML, JAVA
Back End	:	MYSQL, PHP
Operating System	:	Windows 07
IDE	:	Eclipse.



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Output

The experiment is based upon the startup business details which has the best solution to use multisource destination pathfor a huge growth of business that display data in a scientific form to their clients. In this project, our application guides you to think about each section of business plan and empower you to not only create a great business plan, but also start your small business or startup the best way possible. The following screenshots below presents the obtained output.

Startup business Registration screen

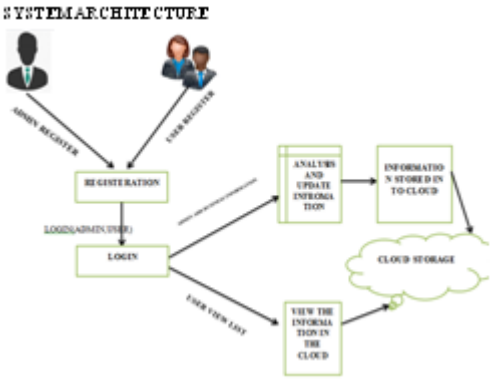
Features of Startup business app

Selecting your own company

4. Conclusion

By using this application there is a huge growth of businesses that display data in a very scientific form to their clients and Solve the social challenges and it has Multi source-destination path. The entrepreneurial environment is characterized by high levels of uncertainty about the markets that entrepreneurs wish to enter [25]. We develop a dynamic data analysis technique based on a POMDP model to answer our research question about how to analyze imperfect market data for business opportunity evaluation, while accounting for the entrepreneur's individual risk preference and operational shortages. Specifically, we obtain a probabilistic information measure in the form of an emission matrix. That measure enables insights from an observable process related to external

factors, which, in turn, helps assess the state of the hidden market. Owing to Markovian modulation of the POMDP model, the findings of our dynamic model are more realistic than standard staticmodels. The data-driven perspective of entrepreneurship, the data analysis tied to an investment strategy can lead to new or revised activities that further reduce uncertainty.



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