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Research Article

Financial Accounting Based Forecasting Technology for Share Market Support

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ABSTRACT

Share markets are among today's trading subjects which comes with high risk factors due to the unknown market fluctuations. The investors are been uncertain on the future of their investments/shares and they are usually relying on accountant or financial advisors. Moreover, customer may be impacted directly to invest on the share market by the company's advertisings e.g. banners and TV ads. In this paper, forecasting technology is been proposed as solution for predicting the future of the share price which may help the financial accountants to provide as accurate as possible advising for the investors which may reduce the risk of losses associated with the market.

Keywords: Forecasting, share market, digital communication, data mining, statistical, finical accountant

INTRODUCTION

Proper marketing of any startup is playing vital role in promoting the startup and increasing the profits. It also has good advantages for the end users as straight forward information can be put under the hands of user for the products he might be in need. Smart forecasting can predict the needs of investors (clients) for particular products and efficiently provide them with the information such as links, addresses, contact details of the service providers. Paid promotions are a common practice in the current days for promoting the various platforms using other website over the cyber space. This may preserve the efforts of the financial accountants by saving the time and enhancing the worthiness of the investment. For example: user who seems to be looking for purchasing a car, may see automatic advertisement on the internet explore promoting for this car from different venders. Also, it can be seen while watching a video on the internet, a short advertisement might be appearing in between which promoting for that particular product.

These types of service are folded under the paid smart investment and event prediction platforms which include smart e-investors advisory system for any product by posting the promotion on large or popular companies which is increase the reachability of product to more people. However, smart investment might enhance the reliability of the investors irrespective of the amount of investment they are willing to do.

STUDY IMPORTANCE

This research derives its importance from the following considerations:

- a. The topic is essential for today's life especially in widespread of Internet.
- b. The growing interest, especially in recent times, by institutions with social media marketing, given the importance of the role this ecommerce and share markets to be emerged in the society.
- c. One major advantage is to allow the finical accountants to access an accurate prediction which will help them provide reliable advices to the investors.

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RESEARCH PROBLEM

Since the today's economy tends towards E-commerce and online transactions, the term share markets gained extended importance. Generally, investment strategies of the share markets can be established by understanding the customer ways of thinking. Each category of customers is having different requirements and hence, marketing planners need to address each factor associated with customer's needs. Customer needs and ways of thinking are understandable by analyzing data related to market behaviors. Many ways are available for gathering the data such as web logging information, surveys on the web networks, personal interviews in public places, etc. Eventually, large amounts of data are existed for analysis purpose prior making any investment plans. The amount of this data is seemed not possible to be analyzed in the conventional methods and normal computer programs. Extraction of knowledge from the big data is one of the important challenges facing the marketing professionals. Data mining technology can help for addressing this issue; but other considerations like, cost, privacy, worthiness, etc. are came to the image. The research gap can be illustrated into three points:

1. large amount of uncorrelated data (from various resources) which is imposes big analytical budget;
2. problem associated with desires forecasting system which considered as main degrading factor in the profitability formula;
3. deployment of artificial intelligence methods on the said forecasting system is not yet made to that extent where portal can be totally depends on the AI decision. However, that due to the reliability issue of AI tools in the particle fields (AI fields still under performance enhancement phase).

RESEARCH QUESTION

In this research study, several factors which are vital for the success of data mining technology in financial accounts platforms are available for discussion. The study is mainly aiming to understand the impact of integration the data mining technology for financial accounts and advisor supporting platform. Hence, this study is attempting to address the following questions:

Q: What is the impact of data mining technology on the market behaviors prediction system in the financial accountant supporting platform?

Q: How does the biometrical data of the investors impact the his/her investing tendency?

Q: With help of data mining technology; how dose financial accountant support platforms are capable to provide a good advising experience for their customers?

LITERATURE SURVEY

A banner is a sort of graphic billboard appearing on the web pages which is used as one way for marketing for the share markets and can reflect the tendency of the customers on which type of products they are willing to explore. Banner advertisements are the most common and most widely used publicity banner in the United States, ranging from (56%) in the year 1998 to (19%) in the year 2004, due to literature works. Most banners that are hyperlinked refer to website advertising.

They were categorized in distinct kinds by the researchers according to size, location, and dynamic aspect [9]. The efficacy of banners was previously investigated and depicted by several modules [10,11]. Banner effectiveness advertising is usually displayed under advertising themes principles:

The advertiser e.g. share provider company creates the shape and content of an ad.

Consumers process part or all of their advertising content.

A long-term communication influence is the role of advertising, which includes the attitude to advertising or the communication effect of issues such as brand awareness, shopping facilitation, and intentions in terms of attitudes.

A literature-based banner has a little beneficial impact, observations indicate that even the large, colourful banners ignore individuals searching for something in networks. This adverse effect is referred to in the literature as "banner blindness," where individuals disregard banners and are not encouraged on web pages to follow banners. Some other papers, on the other hand, showed a favorable banner effect and also indicated that animated advertising has a greater response and a better reminder than non-animated banners; moreover, large banners have better click rates than small banners.

Researchers who studied the same topic as well made it clear that banners that are rapid tend to dress and therefore have a better click rate. As a consequence, the author observed that selective task-related attention plays a significant role in banner advertising studies [12].

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PROPOSED PLATFORM

The financial accountant platforms based forecasting system had gained wide interest in the recent years due to economic changes and life development. The revolution of communication has impacted the individuals as well as service providers routines. New applications like smart mobile platforms and artificial intelligence have made great impact on business and economy. Internet development as well as mobile communications popularity has made noteworthy impact on share markets prediction and investment applications. That imposed large amount of data that being exchanged hourly wise over the investments platforms. This type of data is being gathered from various sources more likely, short time surveys, cookies, investors behaviors, etc. Using the forecasting platform is required to understand the factors impacting on its performance. Data mining technology has made outstanding impact on the performance of investment on the particular shares. The factors that directly and indirectly impacting the performance of investments are enlisted in the following subsections with.

BIOMETRIC DATA SOURCING

At present, the race among the world companies and business owners has taken a new turn which depends on the data. The today's markets are desperately wandering about new technologies that ease the gather of customers data. Upon that, business enterprises can formulate new marketing strategies more likely, new offers, discounts, new quality of serves, updating of products and extra. In each service providing enterprise, the marketing executives are working to extract the interested information that being collected from various sources in order to plan new marketing strategy. However, data that being collected are very large which imposes a new challenge of mining the same. Mining the investors data includes extraction of the useful information that fulfil the requirements of marketing team for improve the investment selection/ share selection strategy.

The collected data may reveal some basic information about the clients such as age, gender, graduation level, his type of job (solarized or business), his/her monthly income, etc. such information has significant impact on the shopping intension of the customer. According to the literature, the age and gender are most important features of the biometrical data in the forecasting platforms. Age and gender may tell the marketing specials about the products that targeted by different age groups and different genders. Such information may help to determine the products that targeted by such categories. And hence the marketing team will be able to identify which area they will target in their plans as well as manufacture will understand the volume that might be required to serve the demand. Advertisement to age and gender, the e-marketing planners might suggest to target particular online portals such as gaming web-sites, women based online communities and so on to post their new advertisement.

Education level and career of the customer are more significant factors in the investment platforms. Some service providers will be more interested to understand the educational qualification of the candidate or customer spatially those related to mortgage and financial organizations. Banks are likely to provide several products apart from money depositing and withdrawing; products like loans are to be given according to bank criteria so various categories of clients are subjected to different loan products. Banks might initiate investments plan for promoting loans such as car loans, property loan and business loan.

Bank may determine which customer to approach for different types of loan, database might be available with banks for their own customers, this data is to be used to approach those customers might fit for the current product according to their educational level and career type. Accordingly, bank might post the advertisements as well as promotions into their emails or their net-banking profile (through mobile banking application application). In other word, banks cannot approach all categories for the new products, they approach only those who appears fit to the product.

OTHER DATA SOURCES

Due to the outstanding importance of data in the forecasting platform and its vital role in success of business, enterprises are more concern of development new methods to collect data. The term data can be defined according the investment context as the responses or the behaviors or the actions of clients for various products and services provided by particular company. However, data importance is lie on its impact on new business strategies such as prices, discounts, quality update, etc. the data can be gathered usually while the clients are signing into the online portal and registering their information such as names, addresses, genders, contact information, ages, etc. This type of data is called customer biometrical information and is stored with the online portal storage (servers).

Such data are important and can be used by accessing the server side of the online portal. As prescribed above, the biometrical data may tell a lot about the customers tendency towards investment products and so, it has big influence on the business and selling process development. Web cookies is another source of data that may provide important information about the clients while they are on the cyber network accessing the investments portals or even accessing another website. Cookies can be used to produce data about the user's behaviors such which page or products are mostly visited by the client.

Other sources are usually used by the business enterprises such as online surveys or the so-called short surveys. This can be realized sometimes while exploring videos on platforms like YouTube, a short survey might be appeared asking about the

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favorite car brand or about favorite tour destination, etc. The business owners or companies can buy this type of data from foreign websites (websites other than the company or investment/bank websites made by this company).

Another source of data can be realized in the physical surveys that being collected by the investment companies teams at the public places. As an example, on the physical surveys is, a team of marketing including a volunteers or students or even employees for the marketing service provider company; can be standing in public places such as malls, cinema halls entry, petrol stations, super markets, etc. This team might be provided with a list of survey questions and might be instructed to distributed this list amongst the public. Clients might be asked to fill this form and return it back. Such data can be collected from many people and be converted into computerized format for further usage.

PROPOSED INVESTOR PROFILING SYSTEM

As soon as data is being gathered using various method as prescribed above, mining of this data is the challenge to be addressed. Company team may check the data and may prepare it using the preprocessing methods. During the preprocessing data is being checked in order to tackle any entry error or recovering any missing data. However, large amounts of data is impossible to be mined using the traditional methods. Data mining technologies are introduced recently for efficient mining of the interested knowledge from the so-called marketing data.

The following points are kept in mind while addressing the large amount of data.

- 1) Once, the knowledge about the customer (investor) behaviors while her/she accessed into the forecasting portal is the most interested (concerned) point. However, this point can be addressed out using the data obtained from different sources alike website logging information, surveys, biometrical details, etc.
- 2) As the data of this nature is very large in amount, processing it for knowledge mining must be done using smarter technology unlikely conventional mining methods; data mining technologies are itself improved widely especially after introducing the artificial intelligence. Using the smart data mining techniques can improve the investment experience by enhancing the strategies.
- 3) Collection of enough knowledge about the customer more likely, by using the smart data mining techniques; to construct a special profile about every particular customer including the customer shopping intentions. In other way, customer is to be checked whether he/she really interested in purchasing the product or he/she is merely exploring it.
- 4) One of the important concerns to measure the customer purchasing intention is to determine whether the customer is popular with the product he/she exploring or not. For example, large electronics manufacturing company alike DELL, it might provide a very costly products on their online platform, however, large number of customers might explore the product (remembering each in valid login session on that portal), DELL might follow up with particular customers if it comes to know that particular customers are really aware about this technology (product) and willing to purchase the same. So, DELL can follow up with such customers be email communication which may provide customer with some encouraging offers to push them for purchasing.
- 5) More information to be required for customer profile completion so that company will have complete idea about the customer shopping intention. The location where the customer is accessed from into investment portal is also considerable. Those customers who involve with shopping are usually accessing the e-investment website every frequent more likely, while they are at home as well as while they are at office or even in some other places. From this, company can utilize the data mining technology to determine whether the customer is investments addicted.
- 6) Using data mining techniques, company may determine how the customer accessed the e-portal. In other word, to know which device is usually preferred for shopping alike PC, smart phone or tablets. This is also important point to be used while constructing a customer profile.

PROPOSED EVENTS PREDICTION SYSTEM

Electronic forecasting system or soft marketing is important in pre launching and post launching of products. Supposing that company is willing to launch new product, a good marketing planning must be existed. Similarly, post launching of the product, good marketing is required as well. For example, customer purchase successfully the product A from the e-Commerce portal after impressing by a stunning and purpose serving pre-launching e-marketing (company intersected with client as they found him honest buyer after going through the profiling process).

Upon the checkout, e-portal might guess another add-on product that to be propose along with the being purchased product with some cost cutting for encouraging the customer to make more investment. This is known as post launching investment where the company need to develop smart guessing system using the data mining technology for predicting the products that customer might be needing to buy as add-on option with the current investment product. As example, assuming that customer purchased a (x) brand laptop, he might also require to purchase a good bag and good wireless mouse that making his work experience with laptop more efficient, seller might guess whether this customer is needing such accessories.

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TECHNICAL ASPECTS

Knowing that using the smart technology may require a knowledge of the side effects or the challenges associated with the same. Data mining integration with shopping platform is appeared to be advantageous in many concerns such as investment, trading, auditing, etc. From the other hand, once have to think on the cost of using the smart technology over the shopping platforms and which specific technology is fitting the requirement of them.

Data mining role is become necessary in delivering efficient shopping experience for the customers and to ensure high profitability for the service providers. In the preceding sections, a detailed about mining the customer behaviors over the investment platform as well as details of the event prediction and management system are provided. The implementation of those requirements required innovation of classification, clustering and prediction algorithms. From those available algorithms, are K-means, Random Forest, Neural network, etc. Deep Learning algorithms are also dependable such as Deep Neural Network (DNN) and Long short Term Memory Neural Network (LSTM).

The dispute of which technology is more useful for e-investment forecasting platform can be end by addressed by understanding the volume of business. For large volume of business, it is always preferable to deploy highly equipped servers along with most advance technology. However, data mining techniques can also preserve for the small volume business using the called on cloud server. In recent years, cloud servers can be used to host the shopping portal setup and provide all the facilities of data mining on-cloud on rental bases.

CONCLUSION

Event prediction system might is playing important role in implementing smart investment experience that grapping the trust of customer. A reliable event prediction system may provide cost comparison of a product from different merchants as the customer shows the interest on this particular product. This will increase the trust of customer in the investment portal and ease (facilitate) the investment process. from the other hand, event prediction system is useful for both client as well as the merchant or e-investment company.

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