A Recommended Classification Approach for Multilevel E-commerce Marketing Using Decision Tree Method

Bipin Nair B J

Department of Computer Science
Amrita Vishwa Vidyapeetham, Mysore Campus, Karnataka, India
bipin.bj.nair@gmail.com

Abstract

MLECM is a multilingual e-commerce used in international marketplace. This paper is a crucial part of today’s e-businesses. They generate revenue, offer an avenue for promotion and are an easily accessible means of providing information about a company. MLECM is an innovative system that helps to build its own multi-level marketing group easily. Once the members register their account, they will be connected to the network. MLECMM offers a suite of solutions based on innovative and revolutionary marketing and various types of multi-level compensation, affiliations to the system, management fees, and more in an integrated way. This MLECM can be extendable up to 7 levels using decision tree induction algorithm. Commissions are automatically calculated at ranges for each level.

Keywords: MLM, MLECM, Data Mining, decision – tree, E-commerce,

1. Introduction:

Multi-Level e-commerce Marketing (MLECM) aims a viable "part-time income" or an "extraordinary income" greater than most of the other businesses or occupations is their hallmark attraction to develop money marketing for public. Public will be able to register and start the money chain business using Data mining is a set of automated techniques used to extract buried or previously unknown criteria, which makes it possible to discover patterns and relationships. It is in the form of a decision tree structure and the commission structure (7x7 matrix) type.

Business members can see the progress of their business. In this business, there are seven levels and each level commission rate varies. They are doing the payments in the form of alert pay method. MLM allows all the distributors to recruit others and qualified distributors to receive rebates on the purchases made by multiple levels of recruits who recruit more recruits.

In this paper, we specific to DM implementations in e-commerce marketing. Data mining has also been applied in detecting how customers may respond to promotional offers made by a money chain ecommerce business e-commerce settings, based on product hierarchy for more effective personalization. On the basis of these causal relationships, a framework has been modeled using system dynamics approach to capture the dynamic impact of performance variables on the E-commerce integration and responsiveness for a period of ten months. The results of simulation showed that the long run behavior of the company is significantly different, depending on the E-commerce model chosen for the several factors and methods for Data mining. This framework is useful in analyzing the dynamic impact of different policies towards integration and responsiveness of the multi level Ecommerce money chain business.

Figure 1. Money Chain Tree Representation
2. Problem Statement

MLM are also criticized for being unable to fulfill their promises for the majority of participants due to basic conflicts with Western cultural norms. There are even claims that the success rate for breaking even or even making money are far worse than other types of businesses: "The vast majority of MLM’s are recruiting MLM’s, in which participants must recruit aggressively to profit. Based on available data from the companies themselves, the loss rate for recruiting MLM’s is approximately 99.9%, that is 99.9% of participants lose money after subtracting all expenses, including purchases from the company. In part, this is because encouraging recruits to further "recruit people to compete with them leads to "market saturation." It has also been claimed "by its very nature, MLM is completely devoid of any scientific foundations."

Another criticism is that MLM has effectively outlived its usefulness as a legitimate business practice. The argument is that, in the time when America was a series of relatively small, isolated towns and rural areas not easily accessible to small companies, MLM was a useful way to let people know of and buy products or services. But the advent of internet commerce, with its ability to advertise and sell directly to consumers, has rendered that model obsolete. Thus, today, nearly all modern MLMs ostensibly sell vastly overpriced goods and services as a thin cloak of legitimacy, while their members are driven to recruit even more people into the MLM, effectively turning these programs into pyramid schemes.

3. Contributions

Decision Trees are considered to be one of the most popular approaches for representing classifiers in money chain business. Researchers from various disciplines such as statistics, machine learning, pattern recognition, and Data Mining have dealt with the issue of growing a decision tree from money chain e-commerce related data. Multi-level electronic commerce marketing (MLECM) is a marketing strategy in which the sales force is compensated not only for sales they personally generate, but also for the sales of the other salespeople that they recruit using decision tree approach. This recruited sales force is referred to as the participant's "down line", and can provide multiple levels of compensation. Other terms used for MLECM include pyramid scheme, network marketing, and referral marketing. Companies that use MLM models for compensation have been a frequent subject of criticism and lawsuits. Criticism has focused on their similarity to illegal pyramid schemes, cult-like behaviour, price fixing of products, high initial entry costs, emphasis on recruitment of others over actual sales, encouraging if not requiring members to purchase and use the company's products, exploitation of personal relationships as both sales and recruiting targets, complex and sometimes exaggerated compensation schemes, the company making major money off its training events and materials, and cult-like techniques which some groups use to enhance their members' enthusiasm and devotion. Information technology is all about storing, manipulating, distributing and processing information. Over the past few years, IT has replaced the conventional modes of businesses with innovative technological tools. Data mining is a set of automated techniques used to extract buried or previously unknown criteria, which makes it possible to discover patterns and relationships.

3.1 Advantages of MLECM

- MLECMM is a fully functional advanced money chain e-business.
- Business summary handles summary, member profile view, report, pin generator.

4. Related Work

4.1 My Profile:

The ‘my profile’ deals with the details of each contributor in money chain including ‘First name’, ‘last name’, ‘address’, ‘City’, ‘State’, ‘Country’, ‘mobile number’, ‘email ID’, ‘transaction code’, ‘sponsor ID’.

4.2 My Referrals:

The referrals should have the tree view of only one level with seven persons and there should be a drill down to the subsequent trees. A pop-up should be there which should show the name of the person and the mobile number. The screen should be as below picture. This tree structure has seven levels. The payment is in the form of ‘alert pay redirection’ method.
4.3 Transaction:

The transaction is basically, report were the users can see all the report of his transaction done. There should be an option to see credit-wise or debit-wise only and see transaction of today, yesterday, last 7 days, this month, last month, last quarter, half yearly and ALL. The report should have like Date, username, Credit, Debit and Memo.

4.4 Pin Generator:

The Pin generator is used to generate pins which can be passed to the users. It should show the balance points that pin can be generated only to transfer only in multiples of 100. Pin transfer means, one should send mail to the sponsor with details like userid, date and memo to whom the pin is transferred.

4.5 Mail Center:

The mail center is used to send and receive mails to users friends or send referal links to join more people. It should have a COMPOSE, Send items, drafts. There should be option to fetch mail ids from GMAIL, MSN, YAHOO and Social site like Orkut, Facebook, twitter etc...

4.6 Withdrawal:

The withdrawal page should show first the maximum amount, the user can withdraw. He can then request for withdrawal of money through ALERTPAY (Currently). Public should pay first then only they can enter in to the web site. The payment is in the form of alert pay redirection method.

4.7 Enquiry:

The user should be able to send enquiry and it should go to enquiry@xxx.com. If any user have doubt regarding their business, he should clarify it with the owner.

5. Experimental Evaluation

5.1 Summary Report:

It shows in a nutshell the users profit, membership fee, date of joining, number of signup till date, points payout received, balance payout available, total points earned etc...

5.2 Business Summary:

It shows summary of the company in a nutshell. It shows the total number of active signups, total amount received, total payout given and payout balance. The Business summary page should show the main summary of the amount invested in the business.

Points to the grand up line and send day wishes to the members and welcome auto mailer when he joins and newsletters.

5.3 Geneology Report:

It shows the complete members joined under the particular user. There should be a search option by date RANGE to show by users who had joined in that particular range of date.

5.3.1 Transaction Report:

Show the entire transaction of the user the money flown in and out.

5.3.2 Pin Gerrated Report:

There should be a report of total pins generated.

5.3.3 Geneology Report:

Shows the complete members joined under the particular user. There should be a search option by date RANGE to show by users who had joined in that particular range of date.

5.3.4 Payout Report:

It shows the payout details of the company. Search option by date.

5.3.5 A/C Reports:

It shows the entire transaction report, daily transaction, quarterly, half-yearly and annually. It also shows debit and credit details.

5.3.6 Ledger Report/Payable Report:

Search by date range should be there. The monetary transactions of a business are posted in the form of debits and credits.

5.3.7 Amount Paid/Settled:

Search by date range should be there and It shows settled amount and paid amount details.

5.3.8 Tax details:

It shows the two types of taxes that is VAT and Income Tax.

5.3.9 Bonus: Gifts Report:

In this report bonus and gift are listed seasonally.

5.3.10 Top Member Analysis:

List down who gets maximum points. The member who does the highest business earns the highest profit.
5.3.11 Potential Member:
Lists down the members based on the number of people under his tree who joined in less time and the person will do all business.

5.4 Experimental Results

A decision tree is a classifier expressed as a recursive partition of the instance space. The decision tree consists of nodes that form a rooted tree. Data Set: we used one particular type of data set to evaluate the different recommendation algorithms discussed above.

E-commerce data— we use historical e-commerce purchased data from fingerhut Inc. a large e-commerce company. This data set contains customer information of customer on money chain business. In total data set contain 97,045 customer records that are all in money chain tree. as before we divided the data set into a train set and a test by using the same 80% 20% train test ratio.

6. Conclusion:

We have discussed in this paper about the basic data mining methods and given an overview on what kind of method is eligible for the considered result. Acquiring new customers, delighting and retaining existing customers, and predicting buyer behavior will improve the availability of money chain and services and hence the profits . These are classifications based on decision tree induction. With these methods we can solve such problems as learning the user model, web usage mining for web site organization, campaign management, and event monitoring. In this paper, we propose a new decision tree algorithm for classifying and predicting uncertain data. We extend the measures used in tradition decision tree, such as information entropy and information gain, for handling data. The primary challenge for the next generation of personalization systems is to effectively integrate semantic knowledge from ontology into the various parts of the process.

7. References


