



Appraisal Based on Estimating the Value Generating Process

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ABSTRACT

The paper develops a new domain name appraisal methodology based on valuing the two principal value generating forces, namely, branding potential and traffic. The model can also be applied to determine the best use of a domain name by calculating its brand-to-traffic ratio (B/T).

INTRODUCTION

The value of a commercial site's domain name is driven by two, not necessarily mutually exclusive, functionality forces: branding and traffic values. As these drivers are unobservable, to impute their respective values one needs to use statistical techniques to combine information on observable proxies.

The first section below outlines the methodology used to estimate separately a domain name's branding and its traffic values and uses these estimates to calculate the B/T ratioTM and the market value.¹ Sources of data are described in the following section.

METHODOLOGY: FOUR-STAGE REGRESSIONS

To estimate the market value of a domain name, we postulate a value generating process driven by brand name and traffic, while recognizing additional value through interactions between these two forces.

Outline of Stages

Stage 1: Estimate Value of Each Force Separately

Step 1: Determine the set of potential predictors for each force.

Step 2: Eliminate the predictors that are not statistically significant in predicting domain name market value.

Step 3: Estimate the value of each force for each domain name using the associated significant predictors from Step 2.

Stage 2: Estimate the B/T Ratio

Use the values estimated in Stage 1 to Estimate the B/T ratio.

¹ For potential applications of the B/T ratio, see Alex Tajirian (2006), "[Making Sense of Domain Name Appraisals: The B/T Ratio](#)," DomainMart.

Stage 3: Estimate the Pricing Model

Estimate a domain-name pricing model using a tree-regression of actual sales prices on the values of the two forces obtained in Step 3 of Stage 1.

Stage 4: Use the Pricing Model to Predict Value

Use the estimated model in Stage 2 to predict the market value of a domain name.

Stage Details**Stage 1:**

Step 1: We use the following set of predictors as proxies for each force:

Branding Potential:

1. The number of search results in the major search engines for the keywords in the domain name
2. The length of the domain name
3. The number of words in the domain name
4. Extension saturation: the top-level domain (TLD) extensions that the domain name are registered under
5. Extension of the domain name
6. The number of hyphens in the domain name
7. Number use

Traffic Potential: Domain name use for forwarding/leasing and parking are distinguished.

Forwarding/Leasing:

1. The volume of searches on overture.com for the domain name's keywords
2. The number of links-in
3. Traffic country/region source

Parking:

1. Pay-per click (PPC) rates on major search engines
2. Click volume for the domain's keywords
3. The number of links-in
4. Google's Page Rank
5. Language
6. Traffic country/region source

Step 2: Determine which predictors among those on the list in Step 1 are significant by estimating a tree-regression of actual sales prices on the value of predictors.²

² For details on the tree-regression methodology in domain name appraisals, see Alex Tajirian (2005), "[Valuing Domain Names: Methodology](#)," DomainMart.

Step 3: For each domain name in the dataset, we estimate the values of each force separately. The estimates are obtained by first eliminating one domain name at a time from the dataset and then using the rest of the dataset to run a tree-regression of actual sales prices on the significant predictors. At the end of this stage, for each domain name we have its actual sales price, estimated brandability value, and estimated traffic value.

Stage 2:

Given the estimates in Step 3, we calculate the B/T ratio by dividing the estimated brandability value by the estimated traffic value.

Stage 3:

Given the estimates obtained in Step 3, we estimate a predictive model by running a tree-regression of actual sales price on the estimated brandability value and estimated traffic value.

Stage 4:

The estimated model in Stage 3 is used to predict the market value of any domain name. The tree-regression also captures any nonlinear relationships between value and the predictors, as well as interactions between the predictors.³

DATASET DESCRIPTION

Sales data is obtained from DNJournal.com, AfterNIC, and DomainMart's escrow transactions.

Data on the descriptors is compiled by first splitting each domain name into keywords. For each keyword, the following descriptors are used: the number of search results on Google; the average cost-per-click (CPC) and the volume of daily clicks from Google's AdWords; and the search volume, the number of bids, the highest bid, and the number of bids from Yahoo's Overture.com. Thus, for each of the domain names, data is collected for all the descriptors.

CONCLUDING REMARKS

The methodology developed above provides an additional scientific tool to appraise domain names. We are currently statistically analyzing the relative predictive performance of our models. Nevertheless, the value estimate from this methodology can be combined with other techniques to improve the overall precision of an appraisal.

A methodology based on statistics is imperative to measure the relative strengths of each of the value drivers. The B/T ratio has valuable applications in determining the best use of a domain name, judging its traffic quality, and selecting portfolios.

³ An example of interaction effects is when a searcher types in a brand name in the browser, i.e., a brand name can have an impact on traffic.