



## **Branding Hierarchy and Premiums Among gTLDs**

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### **Abstract**

The optimal branding decision among the generic top-level domains (gTLDs) is based on the availability of the TLD, the price premiums among the alternatives, and the level and type of TLD signaling that the company is trying to pursue. Based on these factors, I introduce a model to determine the optimal gTLD branding when the dot-com option is unavailable. The price premia are estimated using a tree-regression model.

### **Introduction**

When the “.com” TLD is unavailable,<sup>1</sup> companies face the dilemma of choosing which extension to use for TLD branding. Below, I answer the question by developing a simple model based on the TLD’s signaling effect, its availability, and empirical estimates of the premia among the alternative gTLDs.

Knowing the optimal TLD branding saves a company unnecessary domain name purchases, increases the company’s revenue associated with the correct signaling, and assists companies in making the correct decision when new extensions are introduced.

### **Signaling**

Use of two of the original gTLDs, “.net” and “.org,” were intended to signal an Internet company and a non-profit organization respectively. However, with the scarcity of branding options under .com, these two gTLDs have been used as a second-best alternative to .com branding. Yet, the original signaling impact has not eroded from the minds of Internet users, especially with indirect marketing by Microsoft’s “.Net” project.

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<sup>1</sup> For a model of “.com” vs. ccTLD branding, see Alex Tajirian (2005), “[Branding Strategy: The TLD Dimension](#),” DomainMart.

Besides its signaling role, the .net has been used for name-servers,<sup>2</sup> while some companies, for example, Forbes, use the dot-com as their main TLD branding, but use .net for some of their employees' emails. The .org seems to still signal the organization's non-profit status. For example, the recently created BushClintonKatrinaFund uses the .org for advertising and branding despite their ownership of the dot-com brand too.

On the other hand, the newly introduced extensions .biz and .info were launched to meet the Internet's growth and the perceived resulting demand for and stress on the original gTLDs. The .biz was intended to signal an online business, while the .info to signal an online information site.

The .us, although technically a country code top-level domain (ccTLD) for the U.S., has been used by U.S. companies as an alternative gTLD. Thus, it has been included in this comparative study.

### Test Description

Comparing the means and medians of domain name sale prices across gTLDs is like comparing apples and oranges. To unify the measurement unit, the researcher needs to use a statistical test that can measure price differences, while holding constant other factors that impact value.

To test for the existence of price differences across gTLDs, I use a tree-regression model of the form:

$$\text{Price} = f(X_1, X_2, \dots, X_N, X_{BF}) + e$$

where Price is the market value of a domain name,  $f(\cdot)$  is a nonlinear function that also allows interaction between the descriptors,  $X_i$  is the  $i^{\text{th}}$  descriptor of Price,  $X_{BF}$  is a branding factor that represents the gTLDs, and  $e$  is a random error term.

Thus, if there are no value differences between the gTLDs, the branding factor  $X_{BF}$  should not be significant, i.e., should not appear in the estimated tree.

An alternative statistical test is to estimate a linear regression of the predictors with dummy variables for each of the gTLDs. One can then test the statistical significance of the coefficients on the dummy variables. However, a tree-regression has a number of advantages, as it allows for non-linearity and interaction between the descriptors without having to specify the exact functional form of the regression, and is more robust to the presence of outliers in the data.

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<sup>2</sup> Dot net represents 58 percent of worldwide hosts and 30 percent of the world's nameservers according to VeriSign, "There's more to .net than meets the eye," available at <http://www.verisign.com/stellent/groups/public/documents/presentations/022109.pdf>.

**Data**

Market price data is obtained from the following publicly available sources:

- a. Sales of .net, .org, .biz, .info, and .us at a price of at least \$1,000 between January 2004 and October 2005. The data is available at DNJournal.com.
- b. All AfterNIC sales of over \$1,000 between January 2004 and November 2005.

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.<sup>3</sup> Thus, for each of the domain names, data was collected for all the descriptors.

In addition to the above keyword-based descriptors, we use the domain name’s extension. The extensions considered in this study are .net, .org, .biz, .info, and .us. The domain names not included in the study are: hyphenated and non-ASCII domain names; domain names that correspond to keywords that Google’s AdWords does not allow public access, such as certain keywords related to medical and pharmaceutical terms; and domain names with seasonal demand keywords, such as Christmas and Halloween.

The resulting database has 497 sales records with the following summary information:

<b>Data Summary Statistics</b>					
<b>Extension</b>	<b>count</b>	<b>Mean (\$)</b>	<b>Median (\$)</b>	<b>Min (\$)</b>	<b>Max (\$)</b>
BIZ	79	2,574	1,622	1,000	14,027
INFO	229	3,259	2,000	1,000	28,086
NET	98	9,320	2,247	1,000	150,000
ORG	41	10,605	5,025	1,000	80,000
US	50	3,542	1,651	1,000	25,000

<sup>3</sup> In our appraisal model, we find that the number of links-in, search engine link popularity, and the registration of a domain name under two of the major ccTLDs add predictive power to the model.

**Results**

For domain names in the \$1,000-\$11,800 price range we find a significant difference between two groups: .net and .org on one hand, and the rest in a separate cluster. The average premium advantage of the former group is 248 percent.<sup>4</sup>

However, the model was unable to discriminate among the considered gTLDs for domain names in the higher price range. One possible explanation is the paucity of sales data on high-priced domains under the considered gTLDs, which make statistical discrimination among them unattainable.

**Model & Branding Recommendations**

I postulate a two variable model: the company’s desired TLD signal, which takes two states weak and strong, and the availability of the domain name under the optimal signaling option. Thus, the options can be represented by the four quadrants in the Matrix of Options below.

**Matrix of Options**

		Signal	
		weak	strong
Availability	yes	I	II
	no	III	IV

For quadrant I, the options to consider are .net and .org, as they command a higher price premium. However, a for-profit organization should select the .net, as it avoids any potential negative signaling with a .org of a non-profit organization. On the other hand, for a non-profit organization, the .org is the optimal signal.

For quadrant II, the optimal strategy is to register under the desired signaling message. Thus, all extensions are viable. However, if the .net is not available for a for-profit business organization, the choice is between .us and .biz. Thus, the organization has to choose between signaling a U.S. business and signaling a business with online presence.

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<sup>4</sup> A recently updated study of Alex Tajirian (2004), “[Dot-com Is King with No “Adult Effect”!](#)” finds an average premium for .com against all other gTLDs of 795 percent.

Under quadrant III, the optimal strategy is to purchase the TLD that is expected to create the highest shareholder value. This, however, does not necessarily mean the cheapest, as, for example, one of the TLDs under consideration may be more expensive because it has desired established traffic.<sup>5</sup>

For the forth quadrant IV, the optimal choice is the TLD that is expected to add the highest value. However, under this scenario, the company needs to distinguish between two sources of expected traffic generation: the impact of signaling and a signal-independent component. The value generated by the signal driven component has to be greater than the price difference between the optimal TLD prescribed by the model and the second best alternative TLD. For example, assume the following: DomainName.net is selling at its fair market value of \$10,000; DomainName.us can be purchased at \$4,032; and the value of the signaling traffic component is \$2,000. Under this scenario, the company is better off using the dot-us, as the additional \$5,968 (\$10,000 - \$4,032) cost to purchase the .net is larger than \$2,000 (the value of additional traffic due to signaling).

### **Concluding Remarks**

As more data becomes available, it may become feasible to further refine premium differences among gTLDs.

The model can also guide the selection of future TLDs by considering the proposed extension's signaling value to potential users.

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<sup>5</sup> Europe seems to favor .info over .biz. This preference has pushed .info registrations to surpass .org in January 2005 according to ZookNIC, available online at <http://zooknic.com/Domains/counts.html>.