

1-1-2014

## To Outsource Web Development or Not: A Small Automotive Company Considers Search Engine Marketing

Martine Robinson Beachboard  
*Idaho State University*

John C. Beachboard  
*Zayed University*

Follow this and additional works at: <https://zuscholars.zu.ac.ae/works>



Part of the [Business Commons](#), and the [Computer Sciences Commons](#)

---

### Recommended Citation

Robinson Beachboard, Martine and C. Beachboard, John, "To Outsource Web Development or Not: A Small Automotive Company Considers Search Engine Marketing" (2014). *All Works*. 3659.  
<https://zuscholars.zu.ac.ae/works/3659>

This Article is brought to you for free and open access by ZU Scholars. It has been accepted for inclusion in All Works by an authorized administrator of ZU Scholars. For more information, please contact [Yrjo.Lappalainen@zu.ac.ae](mailto:Yrjo.Lappalainen@zu.ac.ae), [nikesh.narayanan@zu.ac.ae](mailto:nikesh.narayanan@zu.ac.ae).

MARTINE ROBINSON BEACHBOARD, JOHN C. BEACHBOARD

## TO OUTSOURCE WEB DEVELOPMENT OR NOT: A SMALL AUTOMOTIVE COMPANY CONSIDERS SEARCH ENGINE MARKETING <sup>1</sup>

*Automotive entrepreneurs confront online marketing and consider pay-per-click advertising and search engine optimization as well as whether to do their own web development and maintenance or hire Internet professionals. Contact authors for Teaching Notes and Discussion Guide: [beacmart@isu.edu](mailto:beacmart@isu.edu).*

It was a clear, cold January 1<sup>st</sup> in New England. Tim and Cyndy, never interested in big New Year's celebrations, were taking stock of the previous 12 months and thinking about what they needed to do in the coming year. The couple were sole owners of two small businesses, Phoenix Service Company, an auto repair shop, and Federal Hill Trading Company, an online retailer of specialty automotive parts, both operated out of a shop near their home in the northeastern United States. After 30 years of crawling under cars and lifting engines, Tim was winding down the service business and concentrating on building up Federal Hill auto-parts sales. But since Phoenix auto repair continued to provide their major income source, Tim and Cyndy had some real hesitation about how to make the transition.

Since the mid-1980s the couple had run an automotive repair shop specializing in the service of British sports cars, primarily Aston Martin, but also Jaguar, Lotus, and even an occasional Rolls Royce. While most service and repair work was performed in the shop, Tim also attended vintage car races to provide track-side support for his upscale customers and other car owners at the events. These activities were not real money-makers, but they did get Tim and Cyndy out of the shop and give them a chance to see the vehicles they loved in action.

While working on vintage British imports may sound like a dream job for the mechanically inclined young person, running a one-mechanic service and restoration shop was a constant challenge. The business owners were always looking for the chance to earn some extra cash, primarily by keeping an eye out for old cars, too far gone for restoration but providing a source of parts that might later be sold at a profit. Of course, working on vintage vehicles, they were accustomed to finding, buying, and selling a wide range of used and new auto parts.

---

<sup>1</sup> Copyright © 2014, *Informing Science Institute*. This case was prepared for the purpose of class discussion, and not to illustrate the effective or ineffective handling of an administrative situation. Names and some information have been disguised. Permission is granted to copy and distribute this case for non-commercial purposes, in both printed and electronic formats.

## Recognizing a Business Opportunity

Over the years, Tim and Cyndy became familiar with a range of interesting specialty auto parts. For example, copper-nickel-alloy tubing used for brake and fuel lines came “stock” on high-end Aston Martins, and they began to use the same tubing on other repair jobs. The tubing, sold under the brand-name Cunifer, was easy to work with, being much more flexible than the steel tubing commonly used to repair brake lines. It had the added advantage of being corrosion resistant and thus long-lasting. Like most of the vehicles Tim worked on, Cunifer tubing was imported from the United Kingdom. Thus, the Phoenix owners learned how to order and import the product, used it regularly, and maintained a reasonable inventory.

The idea behind the founding of Federal Hill Trading Company sprang from the off-hand comment of a fellow mechanic doing some sublet work in the Phoenix shop. After installing the import tubing on a 1961 DB4, he marveled at how easy the Cunifer product was to work with and asked if he could buy more to install on a Camaro he was restoring. As the two men talked about the product and its uses, Tim got to thinking that perhaps there was a business opportunity in importing and selling Cunifer in the United States.

The appeal of flexible tubing should not be underestimated. It did not look as impressive as the stainless steel tubing used on many show cars, but Cunifer looked pretty good and was much easier to install (see Exhibits 1 and 2). Mechanics who had wrestled with the unpleasant task of threading unwieldy steel tubing underneath a car could appreciate the savings in time and effort. Add that to its corrosion resistance and attractive appearance, and the copper-nickel-alloy tubing was well worth its premium price. While widely used overseas, the brand was almost unheard of in the United States. Given Americans’ love of their automobiles and the corrosive winter driving conditions in many parts of the country, there appeared to be a good potential market for the product.

The business of servicing vintage British imports left Phoenix susceptible to economic ups and downs. Most import owners kept the vehicles for pleasure or as hobbies, did not view them as a necessity, and could defer service work if their investments were not performing as well as desired. Tim and Cyndy realized that in coming years it might be nice to have an easier way to earn a living than working long hours on their feet, backs bent over engines in a garage in the cold Northeastern climate. It occurred to them that selling Cunifer tubing might enhance their income in the short term and offer a new career option in the long term.

Since the retail trading company was just a sideline, the owners could only work on it in their spare time. It took them about two years to do research, obtain distribution rights, and line up the financing necessary to start the business. During that time they showed the product around informally at automotive events, to acquaintances in the automotive repair business, and to customers who did some of their own restoration and repairs.

Finally, the required agreements were signed on January 2, 1996, and a new enterprise was formed: Federal Hill Trading Company. Tim and Cyndy were excited when they received their first stock order at 10 a.m. April 10, 1996.

## Launching Federal Hill Trading Company

The actual launch of Federal Hill and its signature product, Cunifer tubing, was a gradual affair. Phoenix Service Company remained Tim and Cyndy’s primary business and source of income. Tim started to attend more car races and shows, purchasing booth space to display and sell the new product. The results were modest, largely because of the limited availability of the tools and ancillary parts required to install the copper-nickel tubing. An effective tool was required to flare the ends of the tubes so they could be

connected to an automobile's brake or fuel system. The specific type of brake nut best used for fastening the tubing was sometimes hard to find. To sell brake line, then, they needed to stock nuts in various sizes and identify a source of the required tools.

The flaring tool proved to be a real problem. Such items were available but were hard to find and expensive. Not everyone interested in ordering the Cunifer brake lines was willing to spend \$600 on an installing tool. An automotive repair business might justify the expense as an investment, given the number of brake jobs it might do in a year, but the cost of the tool was a serious barrier for hobbyists who might need it on just one occasion. After considerable research, Cyndy found a European manufacturer that could supply the tool at a price that would allow Federal Hill to take a reasonable markup and still resell it for just \$360 (see Exhibit 3). Later, they offered a mail-order rental option for hobbyists who had never installed brake lines before.

Once the entrepreneurs solved these problems, their sales began to increase. However, new customer development was still based largely on word of mouth. Attracted by the possibility of selling to customers all across the United States, Tim and Cyndy decided to post an informational website for Federal Hill right from the very beginning, in 1996. The age of their website proved to be an asset later when they began more actively marketing their products online, because site longevity is a factor in Google Search's relevancy scores (WebConfs, 2013). So now they had products and installation tools, and a basic, non-interactive homepage, but not much traffic and very little business. Sales that first year totaled about \$2,500. Still, the entrepreneurs were hopeful their fledgling sideline business could take hold. However, the next year presented new difficulties, and the young entrepreneurs had trouble keeping enough stock on hand. "Facing profound problems in 1998, we idled down to simply selling our remaining inventory of tubing and waiting to see what would happen," Tim recalled. Not much did happen: Gross sales in 1998 were a discouraging \$1,200. However, that was to be their lowest year. Things got better.

### **Growing the Site and the Sales**

Federal Hill strengthened its relationships with its tubing supplier and nut manufacturers over the next couple of years, and the pace of business began to increase. Annual sales achieved by face-to-face and telephonic marketing efforts were climbing but remained modest, never exceeding \$10,000 in annual sales prior to 2004.

The company recognized two major categories of customers. One was the business-to-consumer (B2C) target. This was the end consumer, an individual hobbyist who worked on his/her own car. The other category was the business-to-business (B2B) client. This was the professional mechanic who purchased parts to install in end consumers' vehicles. In a recent year, Federal Hill had more B2C consumers (1,032) than B2B clients (318). They also made more income from B2C sales (\$104,290) than from B2B sales (\$75,917). As might be expected with a growing enterprise, Federal Hill had more new purchasers (930) than returning ones (420). However, *returning* individual consumers (B2C) bought much less merchandise on their second visit (an average of 7.6% of original purchase value), whereas repeat B2B clients made modest initial purchases but spent much more on subsequent orders (306% as much the second time around). Income by customer category is summarized in Table 1.

	<b>Annual Number of Buyers</b>	<b>Annual Value of Purchases</b>	<b>Repeat Customer's Average Estimated 10-year Purchases</b>
<b>New Business Clients (B2B)</b>	91	\$18,714	
<b>New End Consumers (B2C)</b>	839	\$96,929	
<b>Repeat Business Clients</b>	227	\$57,203	\$2,520
<b>Repeat End Consumers</b>	193	\$7,361	\$381
<b>TOTALS</b>	1,350	\$180,208	

The Federal Hill website (Exhibit 4) had been little more than a homepage announcing that the company existed and was in the business of selling Cunifer. The site evolved to include an online brochure featuring product information and a telephone number for customers to call in their orders. Cyndy taught herself the basics of HTML (the markup language used to create web pages) and undertook further site development, working on it herself or getting occasional assistance from friends, acquaintances, and freelancers. The website was improving, but very few customers were finding it.

In 2005 the Federal Hill owners decided to investigate sponsored-search or pay-per-click (PPC) search-engine advertising. Ads purchased under this arrangement appear under a heading such as “Sponsored Results” above or to the right of organic search results on pages such as Google’s. In a typical pay-per-click model, “marketers bid for keywords that they think their target audience will be inputting at the search box. What they bid then determines where they are placed in the list of paid-for search results which almost every search engine displays alongside its natural search listings... The aim is usually to be at least in the top 10, if not in the top three” (Clow & Baack, 2012, p. 242). Using PPC, advertisers pay the website owner only when an ad is clicked. Based on their research Tim and Cyndy began using Google AdWords (see Exhibit 5) to direct customers to their website, starting with a PPC budget of \$150 a month. This strategy seemed to do the trick. In 2005, Federal Hill’s sales reached \$37,000, and in 2006, \$58,000. See Table 2. By this time the entrepreneurs had developed a more comprehensive website, but it still required customers to phone in their orders.

<b>Year</b>	<b>Income (annual)</b>	<b>AdWords Budget (monthly)</b>
<b>1996</b>	\$2,500	
<b>1998</b>	\$1,200	
<b>2004</b>	\$10,000	
<b>2005</b>	\$37,000	\$150
<b>2006</b>	\$58,000	\$150
<b>2007</b>	\$100,000	\$300
<b>2010</b>	\$170,000	\$300
<b>2011</b>	\$180,208	\$300

It was 2007 before the company established an online storefront incorporating an electronic shopping cart that allowed customers to make purchases online. Then year-over-year sales figures began to get exciting. Gross figures reached the \$100,000 mark in 2007 and kept climbing, even in a tough economic climate.

Interestingly, though, most customers still didn't actually purchase online; they called in. Even in 2011 only about 40 percent of their auto-parts sales were made online. Tim was convinced, however, that having an actual online store helped sales indirectly by giving the business a more professional image, whether customers completed transactions there or not. "Although the majority of our sales are business-to-business with transactions completed on the phone, still it's the web that's driving sales," Tim said. However, the percentage of online sales continued to increase steadily, a trend that Federal Hill wanted to reinforce, since this required less intervention and thus less labor.

Although Tim was a strong believer in online presence and promotion, he was not convinced he needed to invest further in online advertising. The company continued to see sales growth in its three main products (brake lines, brake nuts, and flaring tools) with its \$300 per month Google AdWords budget. There was no doubt in Tim's mind that pay-per-click search engine advertising made Federal Hill Trading Company a viable business, but he said, "We feel it would make no difference in sales if we doubled the amount allocated for AdWords. Over time, our *organic* search engine rankings have risen near the top, and the percentage of customers reaching our site via *pay*-per-click links is trending down."

He and Cyndy expected to see slow but steady growth if they just continued what they were doing, but they wondered if there were more they should be doing. They were interested in exploring options to help the business grow faster. They wanted their sales to reach or exceed \$300,000 within two years. If they could achieve that, Federal Hill would become their primary business, allowing them to ease completely out of the automotive repair business.

That was the focus of their January discussion. Search engine referrals had provided the key to success so far, but Tim and Cyndy had done just about all they knew to do and did not want sales to plateau at their current level. They reasoned that, if they were serious about their goal, it was time to seek professional assistance with search engine marketing (SEM). For a one-time fee of \$1,000, they hired Tsuvo Online Innovations Group, a web development and Internet marketing firm in Boise, Idaho, to perform an online marketing analysis for them. Objectives of the consultants' preliminary analysis were:

- To identify online opportunities with attractive levels of traffic and manageable competitive landscapes
- To estimate the investment necessary to improve and sustain search engine rankings, competitive edge, and traffic volume
- To provide guidance for using the gathered information in the development of an internet marketing strategy

## Online Marketing and SEO

Both Tim and Cyndy made a concerted effort to learn about online marketing and advertising. They knew that online advertising was different than advertising in traditional print and broadcast media. The most important distinction, given their limited budget, was that with online marketing they did not necessarily have to make a large expenditure to reach a national audience. Marketers can purchase online display advertising such as banner ads (across the top of a webpage), or pop-ups, pop-unders, floating ads or interstitials (that present ads in smaller or temporary windows auxiliary to the main content) (Bonorum, 2011; Cho, 2011). Display ads typically feature a graphic image placed on someone else's web page. In addition to static images and text, display ads may include animation, links to online videos, and other interactive or rich-media elements. These messages appear on websites selected by an advertiser, agency, or computer program, and the advertiser pays for posting them. Fees are based on impressions (number of times a viewer has an opportunity to see a message) or cost-per-click (number of times someone actually clicks on the ad to reach the marketer's website). Since most consumer online purchases start with searches

(Rubin, 2011; Sterling, 2011), many marketers concentrate their advertising presence on search engine sites.

**Search engine marketing (SEM) exploits a combination of pay-per-click (PPC) search-engine advertising and search engine optimization (SEO).** Search engines are computer programs with four major functions: crawling, indexing, calculating relevancy and rankings, and serving results (SEOMoz, 2010). Since there are billions of pages on the world wide web (Boutel, 2010), search engines such as Google, Yahoo! or Bing use bots, specialized software programs that crawl through the publicly available web, index terms found on the pages, and collect other page attribute information. The indexes are used by search engines to calculate and rank probable relevancy of web pages to users’ search terms. The algorithms that select and order the page links contain some 200 weighted variables and may be reformulated every few days (Tsuvo, 2011). While search engine operators do not reveal their precise formulas, some factors are widely believed to be especially important. These include age of the URL (Federal Hill’s strength in the search rankings can be attributed at least in part to its having established a rudimentary website in 1996); page and domain back-links; referrals from educational and government websites; inclusion of keywords in the site URL, page title and heading; registration with DMOZ Open Directory Project (2014) and Yahoo!; and domain match (URL same as company name). Based on these factors, contextual relevance, and previous popularity (historical click-through hits), a site can increase its stature and move higher in the organic or natural rankings. **(These rankings are based on content relevance rather than paid placement.)** This process is referred to as “gaining authority.”

Of course, if Federal Hill was working on SEO, so were its competitors. Its direct competitors were those that sold copper-nickel brake lines, but the company had indirect competitors too. One strategy Tim and Cyndy considered was trying to compete harder with the stainless steel brake line market. Cyndy reasoned, “Those customers have already broken out of the box to try something different and more expensive. They should be using our product because copper-nickel works even better than steel.” However, the company was a small provider compared to some of these businesses. This is reflected in organic (SEO) search results, as Table 3 indicates. When users searched for stainless steel brake lines, Federal Hill’s web URL did appear in organic results, but it generally ranked about number 22, certainly not showing up on the first screen, where 80 percent of click-throughs are believed to occur (Jacklet, 2010).

Table 3: Search Terms Targeted for Improvement	
Search Term	Average Organic Ranking
Brake line flaring tools	3
Brake line nuts	3
Brake lines	9
Stainless steel tubing	22

The SEO approach is used by savvy content producers and online businesses to design and adapt web pages to assure that search engines reach them and rank them high on results pages. Techniques used to optimize search results are considered legitimate or illegitimate depending on the specific techniques used. For example, the *New York Times* broke the story of JC Penney Corporation’s tricking its way to the top of the search engine rankings by the use of “black hat” SEO techniques such as creating contrived incoming links from 2,015 irrelevant “doorway” pages; consequently Google delisted thousands of JC Penney’s organic searches from its results pages (Segal, 2011). Even before that, German auto manufacturer website BMW.de was punished by total, albeit temporary, removal from search results. (See also Oztalay, 2011, and CEO of SEO, 2011.) In turn, search engine programmers are constantly working to

improve the relevancy of search engine results pages (SERP) and to make their tools “smarter” at sniffing out scams.

## Online Marketing and PPC

In addition to trying to improve their organic search results through SEO, often thought of as “free” (Spencer, 2008), many marketers pay search engines directly to publish their advertising. Tim and Cyndy used the pay-per-click (PPC) method as the second key component of their search engine marketing strategy. Advertisers using PPC choose keywords relevant to their product, consumers, and competition and then set up budgets, aiming to boost their SERP rankings. Some studies have found that sites elevating their ranking to the top 10 or first page of search results experienced nine-fold traffic increases. Even on second and third pages, the increase may be six-fold. Typically more important than page hits are sales transactions, which have been shown to increase by as much as 42 percent in the first month and 100 percent the second month when high page ranks are achieved (Clow, 2012). These percentages notwithstanding, click-through rates typically are modest: about 0.2 to 0.3 percent for most online advertising and occasionally as much as 5 percent for search advertising (B to B, 2007; Clow & Baack, 2012; Quittner & Hempel, 2007; Stern, 2010). The so-called bidding for keywords is actually (at the time of this writing) an asynchronous price war among all marketers competing for SERP rankings on a given search term or phrase. If a Lasik eye surgeon’s cost per click is \$2-4, the purchaser of a generic term such as *pizza* may be paying \$0.30 per click (Plosker, 2004). Even within a particular product or service category, cost per click varies: advertisers bid on keywords, and higher payment for the same keyword gives an advertiser higher placement in the results. This is the “pay-for-placement” model (Plosker, 2004).

When business owners start an online sponsored-ad campaign, they choose words or phrases they believe will be relevant to their product, customers, and competition (sometimes called the strategic triad). Tim and Cyndy set up a single Google AdWords campaign with three AdGroups in it (one group for each of their main product categories). Within each of these groups they designated 100 keyword phrases. They established a monthly budget with maximum bids for each keyword, and Google served up the Federal Hill URL when computer users typed in search strings matching or approximating their keywords. Their most recent contract was a budget of \$0.22 per click for most keywords, with a cap of \$300 per month, about \$10 a day. As Tim put it, they sometimes “ran out of money before running out of month.” Owner-implemented SEO techniques and a \$300 per month PPC budget constituted Tim and Cyndy’s entire marketing strategy. Table 4 displays some details of the entrepreneurs’ PPC expenditures and results. After Tim and Cyndy started paying for specific AdWords, they noticed that a few other websites began carrying their ads. For example, display ads sometimes appeared on HowStuffWorks.com, even though they did not pay the how-to site directly and the site did not link organically to the Federal Hill website. The much better-known site eBay also picked up information from Google AdWords, and Federal Hill got some site hits and a few sales that way.

At this point, Tim and Cyndy were open to further suggestions from outside professionals.

## The Consultants’ Marketing Analysis

Numerous consulting firms offer SEO services. As the 2011 JC Penney example illustrated, not all of these vendors are above-board. The national department store’s consultant offered an effective but unethical means of increasing organic search engine results. As a result, JCP got bad publicity, and search engines punished the company with demoted SERP rankings. However, a consultant with broad knowledge and experience and high ethical standards can be a great asset, advising on content, design, and innovative opportunities.



**Table 4: Federal Hill AdWords Bids and Performance**

Keyword	Avg SEO (Organic) Rank	Maximum CPC Budget	Google-recommended Min CPC	CTR	Avg CPC	Avg CPM	Avg PPC (Sponsored) Rank
brake line flaring tool	4	\$0.22	\$0.25	2.2%	\$0.18	\$3.82	3.8
brake line flaring tools	3	\$0.22	\$0.25	3.2%	\$0.16	\$5.09	4.0
brake line tubing	2	\$0.25	\$0.30	1.2%	\$0.20	\$2.32	5.1
brake lines	9	\$0.40	\$0.30	0.8%	\$0.22	\$1.78	7.9
bubble flaring tools	--	\$0.22	\$0.25	2.1%	\$0.14	\$3.10	2.5
copper-nickel brake lines	4	\$0.22	\$0.30	4.5%	\$0.20	\$8.83	3.5
metric brake line nuts	5	\$0.22	\$0.25	0.0%	\$0.00	\$0.00	4.9
stainless steel brake line	13	\$0.22	\$0.30	0.5%	\$0.20	\$0.92	6.6

In truth, much of the knowledge offered by web consultants is available to those diligent enough to do their own research, so to some extent small-business owners can improve their SEM on their own. In fact, the Tsuvo representatives were impressed with the degree to which Tim and Cyndy had implemented SEO techniques and achieved search-engine rankings, especially given their company’s small size and self-reliance. Small businesses usually can’t do it all, however. The Tsuvo online marketing analysis was designed to offer further information and tell Tim and Cyndy what else they could be doing. As impressive as it may be to provide client-specific research, the SEO consultants’ main revenue stream came from actually implementing their recommendations. More than once Tsuvo delivered its market analysis and recommendations to a client and got a reaction like, “This doesn’t look too hard; I can do all this myself,” only to see the client return in a few months not having accomplished any of the recommendations and asking the consultant to perform much of the suggested work. Accordingly, a Tsuvo marketing analysis read like a contract proposal: it advised which work should be done and included estimated costs for performing that work.

The Tsuvo SEM analysis process consisted of several steps. First, the consultants identified existing keywords a client might be competing for in organic and paid keyword searches. These terms were reviewed with the client to determine if additional relevant keywords or key phrases should be actively pursued. These could include synonyms for known search terms or completely new words or phrases that had not occurred to the client.

Using data that can be drawn from search engines, Tsuvo analyzed how the keywords were used in organic searches and in paid keyword searches: How often were the words or phrases requested? How much traffic were they generating? How many and how strong were the organic- and paid-search competitors? The objective was to identify keywords and keyword phrases that were relevant to the client’s business objectives and were used frequently as search terms yet lacked strong competitors. The presence of other web sites with high search engine authority in the same areas would make it difficult for the smaller or newer client’s website to raise its position in the search ranks. Not surprisingly, keywords that are related to commercial offerings and are widely used as search terms (like our previous example of *pizza*) typically have a large number of strong competitors, making it hard for a small business to get its website to ap-

pear on the first page of search results. Identifying related keywords that competitors may not have thought of could improve ranking and increase page one listings or “hits.”

A major factor distinguishing SEM from a traditional marketing campaign is that the competition occurs at the keyword rather than the product level. The assumption behind an SEM strategy is that winning the keyword competition – improving the client’s organic- and paid-search rankings – will increase desired actions. Typically the desired action is sales but there are other measurable conversions: registrations, subscriptions, downloads, time on site, or number of page views per session. Accordingly, an analysis identifies potentially productive keywords, and the implementation strategy specifies how the client can compete for those keywords.

Increased attention to SEM does not in itself guarantee successful online marketing. A marketer must have a site that supports the conversion of a click into a sale. For example, visitors who find a page slow-loading, confusing, or hard to navigate are likely to abandon the site. Because website design facilitates both search engine results and the conversion of clicks to sales, the marketing analysis includes a detailed inspection of the client’s existing website design.

Tsuvo conducted initial analyses and provided a data overview along with a multi-tiered proposal. Based on their understanding of Tim and Cyndy’s two-year sales objective, to grow gross annual sales to \$300,000 or more, the consultants generated three inter-related project recommendations<sup>2</sup> for Federal Hill:

1. **Website redesign and establishment of an Internet marketing foundation** (duration of effort: one month at an estimated cost of \$2,000 to \$3,000). Within the context of their existing website design, Tsuvo noted that Federal Hill’s search engine results could be improved by reconfiguring title tags to include keywords, using keywords in page headings, labeling all images with relevant keywords, adding an articles page, adding a blog, developing a venue for scheduled posting of site-relevant content addressing keywords, and creating custom analytic sections on the website that would permit Tsuvo to track user behavior and support development of the “sales funnel.” (Sales funnel is a metaphor representing how the number of site visitors narrows between a landing page and ultimate purchase. Site analytics are used to track where visitors go, how long they stay on each page, and where they exit or abandon a site. Analysis of visitor behavior can lead to redesigns, improved site navigation and increased sales.)
2. **Website redesign to support conversion tracking and split testing** (duration of effort: four months at an estimated total cost of \$1,000 to \$1,500). The Tsuvo recommendation was to add a separate set of site tools to support further testing as follows:
  - The first element would be a conversion tracking program to assess the behavior of visitors to the website. This is particularly important when a marketer uses PPC search engine advertising. If clients are paying fifty cents or a dollar for every visitor following a paid link, they want to know what percentage of those visitors are actually making purchases. Conversion tools also can identify which referring sites generate actual purchases. Knowing which sources referred the most promising visitors can help clients choose the most productive advertising hosts, increasing media plan efficiency.

---

<sup>2</sup> In the interest of safeguarding both Tsuvo’s and Federal Hills’s business interests, only general descriptions of project recommendations are included here.

- The second proposed element was a set of tools to support split site testing. In this research method, alternative page designs are served to visitors, and purchasing behavior is monitored to assess which look and feel leads to more sales. Split site testing requires a large survey size of site visitors to generate data sufficient for drawing valid conclusions. The need to analyze site behavior over time drives the need to extend this effort for several months.
3. **Execution of an ongoing internet marketing campaign** (initial duration of three to four months at an estimated cost of \$1,500 to \$2,000 per month). Tim and Cyndy had accomplished most of the SEO activities they were capable of implementing on their own except for some of the HTML clean-up work described under the first recommendation. This final element of the proposed online marketing strategy would establish an aggressive SEM campaign to maintain page rank strength of keywords already in use, and launch aggressive campaigns for three to five especially promising keywords identified by the consultants' analysis. This would be built on the foundation capabilities established by implementing the first two recommendations. That is, before this phase began, the site would be designed to optimize search engine rankings, restructured to improve the shopping experience, and equipped with analytic capabilities to collect data for rigorous site performance analysis. The resulting information should help the client develop and refine marketing campaigns. The ongoing SEM campaign maintenance would consist of:
- Custom analytic reporting and analysis to gauge effectiveness of actions taken. For example, if the client initiated a new keyword campaign: Have site rankings improved? Are improved rankings generating the expected number of click-throughs? Is a sufficient percentage of click-throughs resulting in purchases? With respect to each of these questions, why or why not?
  - Ongoing refinement of the SEM strategy based on the analyses. Essentially, there was a need to assess the effectiveness of the current SEM campaign and evaluate changes (e.g., selection of new keyword campaigns or reallocation of the marketing expenditure) based on the effectiveness of the current strategy and changes in the competitive environment.
  - Ongoing site refinement and content optimization. This could be as simple as updating the site to reflect selection of new keyword campaigns or as complex as complete redesign and reorganization of the site to improve content delivery and navigability. Site refinements would not necessarily be confined to technical issues. Analysis of site data, combined with communication with customers, could lead to changes in the product mix and pricing options.
  - Content dissemination. A site can only accomplish so much by inserting appropriate keywords in page, heading, and image tags. Such activities are easily duplicated by competitors. Additional site authority comes from creating valuable content and updating it regularly. This approach has several advantages. First, if search engines detect regular, substantive changes, they visit and index the site more frequently. This site freshness enhances authority. The hosting of dynamic content encourages incoming (referral) links to the site, further increasing its authority. Accordingly, part of an effective SEM campaign is content creation and dissemination. This can include creation and distribution of articles, press releases, and blog posts. Of course, these activities must be relevant to the site. The JC Penney incident resulted largely from the posting of content and creation of backlinks from irrelevant websites.
  - Establishment and execution of a backlink campaign. This entails developing relationships with industry-relevant partners, including relevant blogs and forums, to link to the client website. It is particularly useful, although difficult, to garner incoming links from \*.edu and \*.gov sites. Linking to relevant, useful content is a legitimate practice helpful to consumers, and it pays to ensure that appropriate sites are aware of the client and to encourage them to link in. Even if these contacts won't insert a referral link, it is important to be an active member and resource in relevant communities. Giving back to the online community is a very powerful and rewarding element of SEM (Ball, 2013).

The recommendations described here were intended to operate in a synergistic fashion, as their benefits built on one another. For example, the creation of a web sales funnel should improve sales among potential customers already visiting the site. And the benefits of the sales funnel would increase as the SEM campaign drew more customers to the site.

## Decisions

Tim and Cyndy were reviewing the marketing analysis. It would be nice if they could just write a check and start implementing all the promising features Tsuvo recommended. Since Federal Hill was a small business with a modest bank balance, however, its owners had to assess which parts of the campaign they believed in and could afford. Here are some of their thoughts on the matter:

- Even if they made no changes to their web marketing, Tim and Cyndy hoped to maintain a 10 to 20% annual growth rate over the next two years (perhaps not unrealistic, given their growth history as indicated earlier in Table 2). If growth continued at the 20% rate, they should reach about \$260,000 in sales the second year. About 40% of the added income would be available to increase their personal income or “draw” or to reinvest in the business. Tim and Cyndy recognized there would be a need to increase inventory as sales increased. Even at their current size, they sometimes experienced stock shortages. Managing inventory was critical, since a majority of their products were imported from the United Kingdom, which took time, and stock outages resulted in lost sales and diminished consumer trust.
- Tim and Cyndy estimated that to fully fund the suggested marketing campaign, they would incur one-time expenses of \$3,000 to \$4,500 for the website upgrade and preliminary analysis, plus an increase in monthly marketing costs of \$1,500 to \$2,000 for the next four months (\$6,000 to \$8,000 over that time period). That would total somewhere between \$9,000 and \$12,500 out of pocket with no guarantee if, when, or how much sales might actually increase. If they did make such a large investment, they would hope to reach \$300,000 to \$350,000 in annual sales by the end of year two. They were not sure it was realistic to expect the proposed campaign to produce this level of growth. Even if the suggested campaign were a good bet, they wondered if they could actually afford to fund the marketing campaign along with the expenses of carrying additional inventory.
- More realistically, the entrepreneurs thought they might be able to come up with \$2,000 for one-time development costs and an extra \$500 to \$750 per month to support an ongoing SEM campaign (totaling \$4,000 to \$5,000 over four months). They thought they could accomplish many of the less technical elements of the recommendations on their own. They’d been fairly successful with their in-house efforts so far, but clearly there were elements of the proposal that exceeded their technical abilities and time constraints. They needed to sort out which, if any, of the Tsuvo proposals they should accept.

As part of their decision-making process, Tim and Cyndy reached out to family, friends, and business colleagues to get their thoughts and opinions as the new year began.

## Reference List and Suggested Readings

- Anthony, S. (2011, 11 August). *How browsers make money, or why Google needs Firefox*. Retrieved 9 December 2011, from Ziff Davis: <http://www.extremetech.com/internet/92558-how-browsers-make-money-or-why-google-needs-firefox>
- Azzaro, M. (2008). *Strategic media decisions* (2nd ed.). Chicago, Illinois: The Copy Workshop.
- Ball, J. (2013, 5 September). *Added value (actionable) link building*. Retrieved 1 March 2014, from <http://www.semrush.com/blog/publications/added-value-actionable-link-building/>
- B to B. (2007, 12 November). *Problem solved (21)*. Retrieved 29 February 2012, from <http://www.btobonline.com/apps/pbcs.dll/article?AID=/20071112/FREE/71112004>
- Bendinger, B. (2009). *The copy workshop workbook* (4th ed.). Chicago, Illinois: The Copy Workshop.
- Bonorum, L. (2011). *Online advertising*. Retrieved 2 April 2011, from Bonorum E-marketing and Web: <http://bonorum.com/Online-Advertising.html>
- Boutel. (2010). *WWW FAQs*. Retrieved 1 October 2013, from Boutel: <http://www.boutell.com/newfaq/misc/sizeofweb.html>
- Browne, G. J., Pitts, M. G., & Wetherbe, J. C. (2007). Cognitive stopping rules for terminating information search in online tasks. *MIS Quarterly*, 31(14), 89-104.
- CEO of SEO (blogger). (2011, 18 February). *J.C. Penney penalized for Black Hat SEO* (SEO Talk). Retrieved 15 December 2011, from AdviseMediaGroup.com: <http://www.advisemediagroup.com/blog/j-c-penney-penalized-for-black-hat-seo/>
- Cho, M. (2011). Online Marketing 101: The six main types. In *My ad engine: Behind the scene*. Retrieved 2 April 2011, from <http://myadengine.com/blog/index.php/2010/01/online-marketing-101-the-6-main-types/>
- Clow, K. E., & Baack, D. E. (2012). *Integrated advertising, promotion and marketing communications* (5th ed.). Prentice Hall.
- DMOZ. (2014). *Suggesting a site to the open directory project*. Retrieved 1 March 2014, from AOL Inc.: <http://www.dmoz.org/add.html>
- Dou, W., Zhou, N., Lim, K. H., Su, C. & Cui, N. (2010, June). Brand positioning strategy using search engine marketing. *MIS Quarterly*, 34(2), 261-279.
- Frommer, D. (2012, 3 February). *The 'Eggs in One Basket' Index*. Retrieved 28 February 2012, from <http://www.splatf.com/2012/02/eggs-basket-index/>
- Geskey, R. D. (2011). *Media planning and buying in the 21st century*. 2020: Marketing Communications LLC.
- Google AdWords Help*. (2011, 26 April). How do I use the site and category exclusion tool?. Retrieved 12 December 2011, from Google: <http://support.google.com/adwords/bin/answer.py?hl=en&answer=116275>
- Google AdWords Team. (2010, 10 December). *5 myths and a reality about Google AdWords*.
- Hanapin Marketing. (2013). *PPC hero*. Retrieved 12 March 2014, from <http://www.ppchero.com/about/>
- Hansell, S. (2005, 25 April). Google prepares to sell ads not related to searches. *New York Times*, p. C1.
- Hosford, C. (2010, 12 April). Search shifts place in plans. *B to B*, 95(4).
- Imprezzio Marketing. (2012, 24 February). *Majority of Google's revenue is from paid ads*. Retrieved 26 February 2012, from <http://imprezziomarketing.com/seo-blog/display-advertising/majority-of-googles-revenue-is-from-paid-ads/>
- Jacklet, B. (2010, April). *Research transforms advertising world*. Retrieved 12 December 2011, from OregonBusiness.com: <http://www.oregonbusiness.com/articles/83-april-2010/3218-the-data-game>

- Jaffee, D. (2007). Peer cohorts and the unintended consequences of freshman learning communities. *College Teaching*, 55(2), 65-71.
- Jones, J. P. (1992). *How much is enough? Getting the most from your advertising dollar*. Lexington Books.
- Kim, L. (2014). *PPC management software: Why you need strategic automation*. Retrieved 12 March 2014, from WordStream: <http://www.wordstream.com/ppc-management-software>
- Kramer, M. (2010, 16 December). *5 myths (and a reality) about Google AdWords*. Retrieved 1 October 2013, from Santa Barbara Marketing: <http://www.site-ninja.com/article/99-test>
- Miami (2012, 30 January - 2 February). *Interviews with directors of interactive sales and marketing*. Miami Herald Media Company. Miami, FL.
- Moriarty, S., Mitchell, N. D., & Wells, D. (2012). *Advertising: Principles and practice* (9th ed.). Upper Saddle River, NJ: Prentice Hall.
- Neff, J. (2008, 25 August). *Industry unleashes flood of studies to prove its worth*. Retrieved 1 December 2013 from Advertising Age: <http://adage.com/article/news/industry-unleashes-flood-studies-prove-worth/130520/>
- Oztalay, M. (2011, 15 February). *JC Penney's black hat SEO backfires*. Retrieved 9 December 2011, from Search Engine Journal: <http://www.searchenginejournal.com/jc-penney%E2%80%99s-black-hat-seo-backfires/27925/>
- Parente, D. (2014). *Advertising campaign strategy: A guide to marketing communication plans* (5th ed.). Cengage Learning.
- Plosker, G. (2004). What does paid search mean to you? *Online* (September/October), 50. Retrieved 2 November 2013, from <http://www.allbusiness.com/marketing-advertising/marketing-advertising/10631845-1.html>
- Quittner, J., & Hempel, J. (2007, 22 November). The high-stakes fight for your friends. *Fortune*.
- Rubin, C. (2011, 25 February). *Study: Shoppers combine search, social media when buying*. Retrieved 2 April 2011, from Inc.: <http://www.inc.com/news/articles/201102/half-of-consumers-combine-search-and-social-media-for-help-buying.html>
- Segal, D. (2011, 12 February). *The dirty little secrets of search* (Business Day). Retrieved 15 December 2011, from New York Times: <http://www.nytimes.com/2011/02/13/business/13search.html>
- SEOMoz. (2010). *SEO: The beginners guide from SEOMoz* (Search Engine Optimization). Retrieved 1 October 2013, from SEOMoz: <http://www.seomoz.org/beginners-guide-to-seo>
- Singel, R. (2011, 19 July). *How does Google make the big bucks? An infographic answer*. Retrieved 9 December 2011, from Wired: <http://www.wired.com/epicenter/2011/07/google-revenue-sources/>
- Sissors, J. Z., & Baron, R. B. (2002). *Advertising media planning* (6th ed.). Chicago, Illinois: McGraw Hill.
- Spencer, S. (2008, 17 April). SEO is not free traffic. In: *All Things SEO*. Retrieved 6 March 2014, from <http://searchengineland.com/seo-is-not-free-traffic-13801>
- Sterling, G. (2011, 28 February). Search + Social Media Increases CTR by 94 Percent. In *Search Engine Land*. Retrieved 2 April 2011, from Third Door Media: <http://searchengineland.com/search-social-media-increases-ctr-by-94-percent-report-66231>
- Stern, A. (2010, 1 February). *8 ways to improve your click-through rate*. Retrieved 15 December 2013, from <http://www.imediaconnection.com/content/25782.asp>
- SteveHallCreative.com. (2007). *How to write ads*. Retrieved 12 December 2011, from Steve Hall Creative LLC: <http://www.stevhallcreative.com/how-to-write-ads.html>
- Surmanek, J. (1996). *Media planning: A practical guide* (3rd ed.). Chicago, Illinois: NTC Business Books.
- Tsuvo Online Innovations Group. (2011). *Personal conversations*. Boise, ID.
- Wasserman, T. (2006). Google advocates change in advertising approach. *Brandweek*, 47(36), 12.

Wasserman, T. (2011, 19 August). *Google: Click-through rates fell in 2010*. Retrieved 12 December 2011, from Mashable Inc.: <http://mashable.com/2011/08/19/google-click-through-rates-fell-in-2010-study>

WebConfs. (2014). *Age of a domain name*. In SEO Tools & Webmaster Utilities. Retrieved 12 March 2014, from Webconfs.com: <http://www.webconfs.com/age-of-domain-and-serps-article-6.php>

WordStream. (2009). *Web Traffic: Make data-driven decisions to generate more web traffic*. Retrieved 9 December 2011, from <http://www.wordstream.com/web-traffic>

## Biographies



**Martine Robinson Beachboard** is an Associate Professor of Mass Communication at Idaho State University, USA. She teaches courses in advertising, public relations, journalism, writing, and mass communication and society.

Dr. Beachboard previously taught with the University of Maryland European Division. She has published in the areas of international and intercultural journalism. Her research has appeared in *Research in Higher Education* and in the *Journal of Advertising Education*. Her professional career experience was in journalism and university public relations. She is a member of the Association for Education in Journalism and Mass Communication (AEJMC) and the American Advertising Federation. She regularly advises students participating in the AAF National Student Advertising Competition.



**John C. Beachboard** is a Professor of Computer Information Technology at the Zayed University College of Technological Information in Abu Dhabi, UAE.

Previously he was a professor of Computer Information Systems at Idaho State University, USA. He has more than 25 years' experience implementing large-scale information technology and telecommunications systems and directing the US Army's Data Network Control Center in Europe. He received an AIS Award for Innovation in IS Education for his work incorporating IT service management concepts in the CIS curriculum at ISU. He is the author of *Peeling the Onion: IT Governance and Management for Business Managers*. Dr. Beachboard's teaching and research interests emphasize practical approaches for delivering and operating secure, cost-effective IT services. He is a member of AIS, ACM, and itSMF.

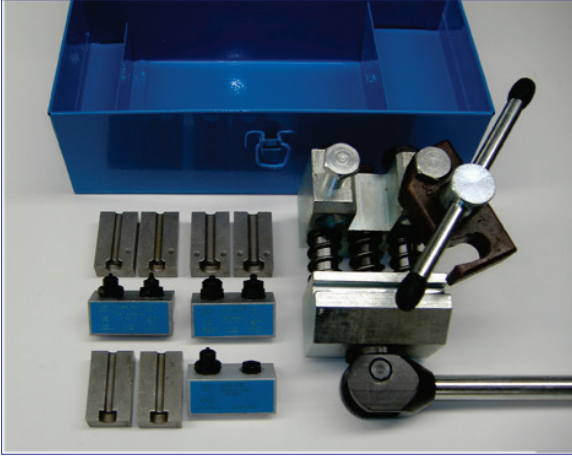


## **Exhibits 1 & 2: Copper-Nickel-Alloy Brake Tubing**





### Exhibit 3: Flaring Tool



## Exhibit 4: Federal Hill Trading Company Website

The screenshot shows the website for Federal Hill Trading Company. At the top left is the logo with the tagline "HIGH PERFORMANCE ALLOY BRAKE LINES". The main header includes the text "OEM suppliers since 1995 in small bore hydraulic tubing for automotive and light truck brake applications." and "OUR PHILOSOPHY: 'Lasting value is built with quality products and expertise.'" Below this is a navigation bar with links for Home, Technical Help, Testimonials, About Us, and Contact Us. A left sidebar lists product categories such as "British-Girling Fuel/Hydraulic/Brake Line Tubing, Nuts and Fittings" and "3/16\"/4.75mm Brake Line Tubing, Nuts, and Fittings". The main content area features a central advertisement titled "FEDHILL FAST AND EASY BRAKE LINE INSTALLATION" which includes an image of a car with brake components and text describing the ease of installation with Cunifer tubing. A right sidebar contains a search bar, a shopping cart icon, a login section, and a secure payment logo.

# Exhibit 5: Google AdWords Data Page

