Advanced Research Techniques for Supply Market Analysis:
Finding the Best Results FAST!

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Abstract. Accurate information on the current state of the market is essential to negotiating the best agreements. Supply chain professionals can learn how to master a new spend category in 20 hours or less by using proven best practices for quickly gathering and analyzing supply markets. Application of the tools and techniques in this article can help increase savings, improve overall category management and improve productivity through fast, accurate research.

Supply Market Analysis is Essential to Effective Category Management. Market intelligence and supply market analysis are elements of any strategic sourcing program and are essential to effective category management. Gathering and analyzing accurate information on the current state of the market is a prerequisite for negotiating the best agreements. Yet few supply chain professionals are able to demonstrate expertise in this area.

Published market research reports which are commercially available from many sources have their place and can provide fundamental knowledge to be built upon and updated. But these reports are expensive and often have a broad scope that is not directly applicable to your particular spend category. In addition, the information contained in published market research reports is aged the moment it’s published and these reports are often only updated every few years.

It is the author’s belief that any reasonably experienced supply chain professional can put together a 6-10 page supply market analysis report that rivals the core information found in market research reports costing thousands of dollars in about 20 hours or less. And because the report will have been written specifically to address the needs of the buying organization, the information will be more focused and more effective than off-the-shelf market research reports.

Learn Any New Spend Category in 20 Hours or Less. How do you know when you really “know” a spend category? We have all met a subject matter expert (SME) before. These people are deeply knowledgeable in a particular area and are often sought after for this expertise and the valuable insights they can offer. It should be the goal of the strategic sourcing professional to become an SME for at least your largest and most strategic spend categories.

Supply chain professionals can become conversant in any new spend category in 20 hours or less, and understanding what information is needed to truly “know” a spend category is the
place to start. To truly “know” a spend category there are several core pieces of information that should be mastered first, before moving into advanced research and analysis. A few of the most essential elements are outlined below:

**Category Name & Description** – Defining the supply market to be studied is first step. Describing the specific spend category and supply market being analyzed sets the scope and focuses the reader on the defining characteristics of the category. It is critical to set the scope appropriately as this will help to ensure rapid research and focus later on. Failure here could render all further numbers meaningless. Avoid using company-specific category names as this can hamper research. If you aren’t sure what the widespread industry terms for your spend category are, search the United Nations Standard Products and Services Code (UNSPSC) database at [www.unspsc.org](http://www.unspsc.org). UNSPSC is the best spend classification system available at this time, but many categories as defined by the UN remain too broad for proper study. If you can’t find the perfect code, choose the two or three which you believe most closely matches your spend category. Additional research contained in this paper will help you determine the single best category name and description.

**Market Size and Growth Rate** – For the purposes of this paper the market size for an industry is expressed as a dollar amount equal to the overall amount spent for that industry. In commodity markets where price fluctuates significantly, the market size can also be defined as the overall quantity of goods produced (i.e., 1.2 million metric tons of steel). The growth rate is expressed as a percentage and describes the expansion or contraction of the industry over time with the most common being calendar year-over-year growth.

**Number of Suppliers and Degree of Fragmentation**– Knowing how many suppliers are available both globally and within your focus region or area is vitally important when mastering a new spend category. Two techniques for calculating the degree of supplier fragmentation (industry concentration) are described in a later section of this paper. Ascertaining the total number of suppliers that could potentially supply your needs is most important as this will have a significant impact in evaluating the balance of buyer/supplier power in the market.

**Industry Profitability** – The level of profitability for a given industry is typically measured by the net profit margin or the return on invested capital (ROIC) and expressed as a percent. While a greater industry profitability may lead the supply chain professional to immediately think of the ability to generate savings through cost compression, high returns may also be found in highly concentrated industries where the increased supplier power allows the firms to command higher margins from their customers. Yahoo! Finance (free) and Standard and Poor’s (fee) both publish information on profitability by industry.

**Barriers to Entry** – In understanding a new spend category, it is useful to understand how difficult it is for any new supplier to enter the market. Certain industries have high barriers to entry such as regulatory requirements, market dominance by existing suppliers, high capital startup costs, access to raw materials, protection of intellectual property, etc. and these barriers serve to decrease the total numbers of suppliers in the market. Over time, industries with higher barriers to entry, low industry profitability and slow growth will tend to consolidate and the number of suppliers will be reduced. The opposite is true for growing, moderate to high profit industries with low barriers to entry where new suppliers may proliferate.
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Researching and analyzing each of the data elements could take a novice researcher several weeks to complete. Two research techniques that will greatly compress this time are to first develop a list of industry specific resources and then conduct a series of telephone interviews once the best sources have been identified.

A trade organization exists for just about every industry imaginable. Understanding this and then developing a list of relevant industry resources through targeted research is a technique sure to reduce your overall time. Industry resources can be grouped into three main categories: Industry Trade Organizations or Lobbyist Groups, Industry Publications or Journals and Industry Trade Shows or Events. Search and develop a comprehensive list of these industry resources using the category description previously identified. It is important to note that you are not developing this list to solely help you focus your internet research. Rather, it is the basis for the next research technique and will be used again later, once the analysis is complete.

It is surprising how many professionals are willing to spend hours combing through the internet yet overlook the fact that the most direct route to their answer may be a 10 minute phone call to an industry expert. Pick up the phone. The industry experts that can be found using the list of industry resources developed in the steps above want to talk about their work. Target the author of a book on the subject, a frequent contributor to the leading trade magazine, or a speaker from a recent industry trade show. Those who are true experts in their field have a passion for their industry and are often willing to share their knowledge with others interested in their work. Comb through the publications, reports, buyer’s guides, etc. that have been found through industry research, identify the authors and experts and reach out to them personally. Experience shows that they will help you locate the best results quickly once they understand the motivation and needs behind the call. It is recommended it be made clear at the initial contact that you are a buyer of the particular subject being researched. This same research technique is often used by paid consultants to whom the industry experts are sometimes less willing to provide information.

**Develop Lightning Quick Internet Research Skills.** The targeted industry research conducted as described can be completed most expeditiously through personal interviews. However, the power and speed of the internet cannot be overlooked. Indeed, advanced internet research skills are essential for completing a supply market analysis in 20 hours or less.

Entire books are written on effective internet searching and a comprehensive review of these techniques is beyond the scope of this paper. However, there are a few advanced research techniques as shown below which should be known to any supply chain professional developing market intelligence. Using these search techniques can improve the end product by conducting more accurate research, faster, but beware as the internet contains many false leads. Know the source and verify the data from additional sources before incorporating found information into your supply analysis.

Become a Google master. At the date of writing, Google currently controls more than 70% of the market share for search engines in the U.S. followed by Yahoo! with about 20%, Bing with about 10% and all others in the remaining few percent. Despite the ubiquity of the Google search engine, there are some advanced search techniques that are powerful and less widely
used. By mastering these commands you can reduce your research time and increase the relevance of returned searches.

**Use “Phrase Search” or “+” To Be Specific** – Putting double quotes [“search term”] around a set of words instructs Google to consider the exact words in that exact order without any change. Phrase search is powerful, but insisting on a phrase search might cause good results to be missed accidently. Save this technique until you have a list of proven successful search terms and then use the phrase search to quickly pinpoint the most relevant information.

**Site Search (site:) Will Focus Your Aim** – Google allows you to specify that search results must come from a given website and will ignore all other websites when used. The format is to use the word “site” followed by a colon, followed by the name of the website to be searched as shown in this example which will search for the words “tata” and “steel” only on the website of the Wall Street Journal. Example: [tata steel site:wsj.com]

**Get What You Wanted With Filetype** – Using the filetype command (filetype: suffix) instructs Google to only return the type of document you specify. This command can be used to retrieve spreadsheets, presentations, MS Word documents and Adobe PDF files by simply appending your search string with filetype: and the type of document to be returned (xls, ppt, doc, pdf, etc.). The filetype command can help narrow your search by returning only the document type of your choice. Example: [TCO calculator filetype:xls]

All Google Masters learn to keep the search simple, but use descriptive words. Google allows a maximum of 32 search terms, yet most searches can be found by using six terms or less. Also, order matters in Google so put the most important and unique search terms at the beginning of the search string. Finally, remember that most everything on the internet is copyrighted so be familiar with the fair use doctrine to avoid infringing on any copyrights.

**A Deeper Investigation Into Evaluating Supplier Power** – All of the research techniques described above serve to provide the supply chain professional with the tools required to develop a basic understanding of any industry in a condensed time period. There are three additional analytical techniques that can be completed relatively quickly and can provide valuable information on the current balance of buyer/supplier power within the market.

**Porter’s Five Forces Analysis** – Porter’s Five Forces provides a convenient framework for exploring economic factors that affect the profits and prices of an industry. The underlying premise behind Michael Porter’s theory is that compared to the overall external environment, the industry environment often has a more profound effect on a company’s competitiveness and an industry’s profit potential. By conducting this analysis, the supply chain professional will evaluate the competitive forces within an industry and will be better able to gauge the balance of buyer/supplier power. Porter’s theory indicates that the stronger the competitive forces, the lower the potential profit for firms within the industry. The forces that lower potential profits for firms are often the same forces that indicate higher buyer power within the market. This analytical tool is well documented in Mr. Porter’s books and in the online writings of many hundreds of graduate students. The Google search techniques provided herein will enable any researcher to quickly find volumes of references and presentations on Porter’s Five Forces Analysis.
**Four Firm Industry Concentration Ratio (CR₄)** – The concentration ratio is the sum of the market shares of the top four firms in the defined industry. Industries with high concentration ratios describe a market structure where the industry is dominated by a small number of large sellers which is also known as an oligopoly. This is critical knowledge because suppliers tend to wield more pricing power than buyers in oligopolies. The US Census Bureau publishes a list of concentration ratios within their Economic Censuses which are organized by NAICS code and are available on their website at [http://www.census.gov/epcd/www/concentration.html](http://www.census.gov/epcd/www/concentration.html).

**Herfindahl-Hirschmann Index** – The Herfindahl-Hirschman Index (HHI) is a commonly accepted measure of market concentration and is generally considered to be more comprehensive than the Four Firm Industry Concentration Ratio. The HHI is the sum of squares of the market shares of firms in the market. Antitrust agencies often refer to the HHI as a yardstick for measuring monopolistic practices among firms. An HHI value of 2,000 has been seen as the upper limit for effective competition while an HHI value of <1,000 indicates a relatively unconcentrated supply base. The lower the HHI value, the more competitive the supply base is and a fragmented supply base can often indicate increased buyer power in the market.

**Use Knowledge Gained to Your Advantage** – Supply market analysis is fundamental knowledge that is needed to drive better procurement decisions and is an important skill for supply chain professionals managing spend categories. Supply market analysis is also a process by which key stakeholders can be provided a view of current market conditions and the underlying industry and market structures. Accurate information on the current state of the market is essential to negotiating the best agreements. Additionally, the information gathered through supply market analysis can provide the intelligence needed to predict future changes to the supply dynamics such as expected expansion or consolidation of the supply base.

Well executed and well documented supply market analysis also pays residual benefits. Many world-class supply chain organizations choose to develop and document supply chain analysis for all of their large and strategic spend categories. When used as part of new-hire training, supply market analysis reports help to quickly make new sourcing professionals effective managers of their spend categories. The completed documents are also of great value when used with executive leadership outside of supply chain to support developing category strategies that require key stakeholder approval. Finally, good research also helps the supply chain professional be more prepared for internal negotiations over supplier selection where customer preference, internal politics, and fear of change are factors.

While not a comprehensive study of supply market analysis techniques, this paper provides a few best practices that can increase savings and improve productivity once implemented. These tools and techniques work best when they are part of an established sourcing process that is followed consistently within a professional supply chain organization. In addition to providing a view into the current state of the market that is essential to negotiating the best agreements, supply chain professionals can become conversant in any new spend category in 20 hours or less by executing targeted research and supply market analysis.
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