

GROWTH OPPORTUNITIES, WHAT ARE THEY AND WHERE CAN YOU FIND THEM?

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During periods of business contraction it is customary for companies to pull in the reins on their spending. Management starts asking the question “How much do we have to cut to make it to the end of the month, or the end of the quarter?” This is often necessary for economic survival, especially for those companies with weak market positions or high manufacturing costs. However, as the economy pulls out of recession, the attention of management must necessarily shift to a different question, “How can we meet our growth targets?” The obvious answer is to invest a sizeable percentage of the company resources toward pursuing product opportunities that are growing faster than the industry.

While this is an obvious answer, the identification of suitable product opportunities is far less obvious, especially in an industry as fragmented as the U.S. adhesives industry. This industry is not only fragmented by market segment and market niche, but also by formulative technology, raw material, and manner of selling to the market. This fragmentation is a double edged sword in that there are potentially a large number of product opportunities; but, because of the fragmentation it is particularly difficult to identify all or most of these opportunities.

Therefore, the first challenge for any company trying to find its way through this maze is to become aware of the various product opportunities that exist. The second challenge is to recognize that all opportunities are not equally attractive to all companies. Therefore, the product opportunities identified must then be sifted to the few that deserve investment by measuring them against company strengths and objectives.

Identifying the various product opportunities is a tall task for any company, even for the very large companies. For this reason one or more well regarded multi-client industry studies can be helpful, in addition to intelligence supplied by internal sources and/or a well-informed consultant. Through such an undertaking, it is necessary to understand the size and growth rate of the opportunity and the competitive atmosphere in which it exists.

ChemQuest has made an effort to accomplish this arduous task through its U.S. adhesives industry database, which was initially established in 1980, and then updated on a regular basis since then. In 2004, ChemQuest estimates the industry will reach \$14.4 Billion (including the captive and merchant markets), while growing at 3.9%/yr over the next five years.



Table 1
Size of the U.S. Adhesives industry

\$14.4 Billion

7.5 Billion Dry Lbs.

AGR of 3.9%/Year

This database subdivides the industry into seven distinctly different market sectors (Table 2):

Table 2
U.S. Adhesive Industry Market Sectors

- 1. Construction**
- 2. Transportation**
- 3. Other Rigid Bonding**
- 4. Packaging**
- 5. Other Non-Rigid Bonding**
- 6. Consumer**
- 7. Tapes**

The Construction sector contains all of the adhesives used in the construction industry just as the Transportation sector contains all adhesives used in the various transportation applications (i.e. as autos, trains, planes and boats). However, a closer view of these two sectors recognizes that most of the bonding operations contained within them involve the bonding of one rigid substrate to another rigid substrate. Yet, there are many rigid-to-rigid bonding operations that are not contained within these two sectors. Therefore, there was a need to create the Other Rigid Bonding sector.

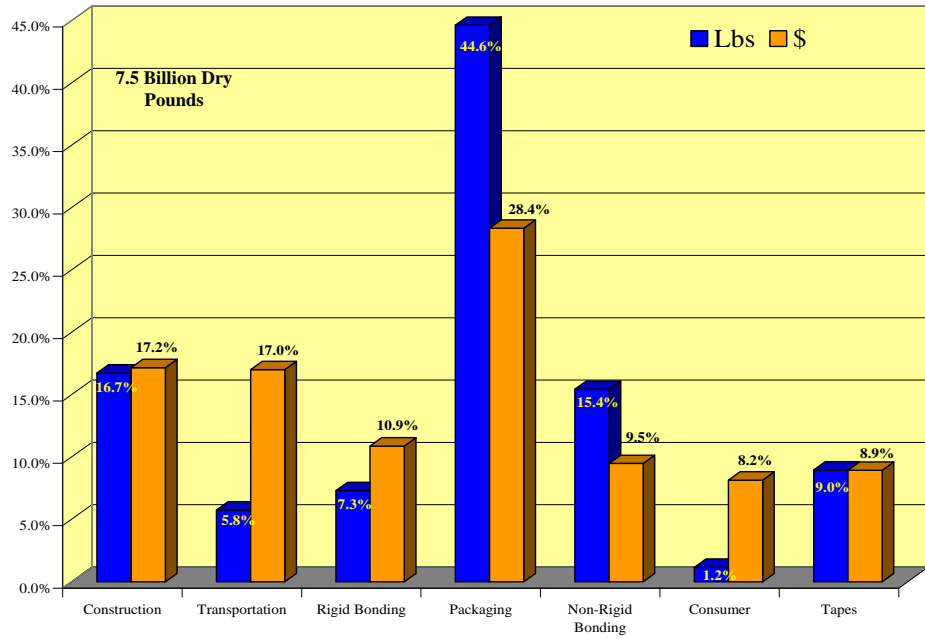
Similarly, the Packaging sector involves largely the bonding of one non-rigid substrate to another non-rigid substrate. Yet, there are many non-rigid bonding operations not contained within the Packaging sector, thereby establishing the need for creating the Other Non-Rigid Bonding sector.



The importance of each of these sectors to the U.S. Adhesives Industry in value and volume is shown in Figure 1.

Figure 1

U.S. Formulated Adhesives Industry -- By Market Sector --



Once these seven sectors were established, ChemQuest sub-divided them further into sixty-one different market segments as seen in Table 3. Each of these sixty-one market segments were studied separately in an effort to not only understand the size and growth rate of each segment, but also the size and growth rate of each competing formulative technology and each raw material family.

Table 3
U.S. Adhesive Industry Market Segments

CONSTRUCTION

Resilient Flooring
Ceramic Tile
Countertop Lamination
Manufactured Housing
Carpet Layment
Flooring Underlayment
Prefinished Panels
Joint Cements
Curtain Walls
Wall Covering
Drywall Lamination
Roofing
Heating, Ventilation, Air Conditioning
Concrete

TRANSPORTATION

Interior Vehicle Trim
Exterior Vehicle Trim
Vehicle Assembly
Rail
Aircraft & Aerospace
Marine

RIGID BONDING

Shakeproof Fastening
Furniture
Milwork, Doors, etc.
Appliances
Housewares
Electronics
Machinery
Supported & Unsupported Film
Lamination
Sandwich Panels

PACKAGING

Corrugated Board
Carton Side Seam & Closures
Disposables
Bags
Labels/Signs/Decals
Cups
Cigarettes and Filters
Envelopes
Remoistenable Products
Film:Film and Film:Foil Laminates
Other Flexible Packaging
Specialty Packaging
Composite Containers and Tubes

NON-RIGID BONDING

Fabric Combining
Apparel Laminates
Shoe Sole Attachment
Other Shoe Manufacturing
Sports Equipment
Bookbinding
Rug Backing
Flocking Cements
Air & Liquid Filters

CONSUMER ADHESIVES

Do-it-Yourself Products
Model & Hobby Supplies
School & Stationery Products
Decorative Films

TAPES

Packaging
Electrical/Electronic
General Industrial
Surgical/Medical/First Aid
Masking/Protective
Consumer



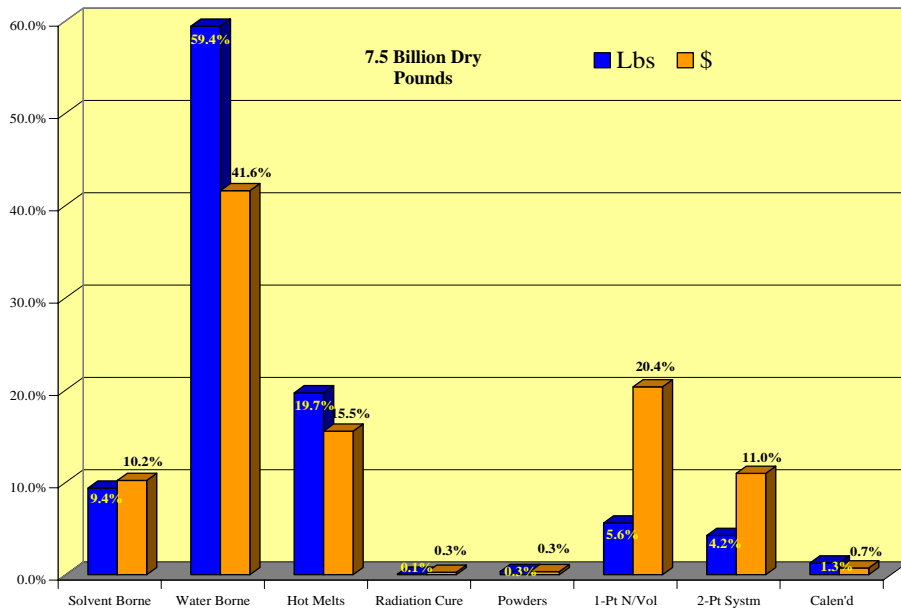
In a similar manner, ChemQuest sub-divides the formulative technologies into Non-Pressure Sensitive and Pressure Sensitive. To this end, it views seven different formulative technologies to comprise the Non-Pressure Sensitive adhesives, while five comprise Pressure Sensitives (Table 4). While Solvent Borne, Water Borne, Hot Melt and Radiation Curable technologies are common to both types of adhesives, it is useful in this database to consider them separately.

Table 4
Formulative Technologies In The U.S. Adhesive Industry

<i>Non-Pressure Sensitive Adhesives</i>	<i>Pressure Sensitive Adhesives</i>
Solvent Borne	Solvent Borne
Water Borne	Water Borne
Hot Melt	Hot Melt
Radiation Curable	Radiation Curable
Powder	Calendered
1-Part Non-Volatile	
2-Part Systems	

The importance of each of these technologies to the U.S. Adhesives Industry is shown in Figure 2.

Figure 2
U.S. Formulated Adhesives Industry
-- By Formulative Technology --



When considering raw material categories, it is recognized that there are hundreds of different compositions. However, to make the number of categories somewhat manageable, ChemQuest force-fit them into forty-one categories (Table 5).

Table 5

Raw Material Categories In The U.S. Adhesive Industry

Acrylics	Hydrocarbon Resins	Reclaim Rubber
Acrylic-Vinyl Acetate Copolymers	Natural Rubbers	Rosin and Rosin Esters
Aminoplasts	Polychloroprenes	SBR (Random Styrene Butadiene)
Anaerobics	Nitrile Rubber (NBR)	Silicone
Animal/Fish	Other Vinyls	Sodium Silicate
Bitumen	Phenolics	Starches and Dextrines
Block Copolymers	Plasticizers	Structural Acrylics
Butyl Rubbers	Polyamides	Terpene Resins
Casein	Polyester-Thermoplastic	Urethane-Thermoplastic
Cellulosics	Polyester-Thermosetting	Urethane-Thermosetting
Cyanoacrylates	Polyethylene	VAE (50+% Vinyl Acetate)
Epoxies	Polyisobutylene	Other Polymers
EVA Copolymers (50+% Ethylene)	Polypropylene	Fillers
	Polyvinyl Chloride (PVC)	
	PVA (Vinyl Acetate Homopolymers)	

Therefore, once compiled, the database provides an understanding of the overall size and growth of the industry, or any market sector or any market segment, as well as any formulative technology, or raw material category. But, even more important to the pursuit of opportunity identification, it provides an understanding of the size and growth for almost 2300 product opportunities. In this regard, ChemQuest defines a “product opportunity” as:

a specific raw material, which is used in a specific formulative technology, which is then used in a specific market segment.

This definition recognizes that a water borne styrene butadiene adhesive used in the installation of wall panels is a different product than a water based styrene butadiene adhesive used in the installation of resilient flooring, which is also a different product than a two-part urethane used in the installation of resilient flooring. Therefore, these three parameters: the market segment, the formulative technology and



the raw material category are useful in defining different types of products – or potential “product opportunities”.

When this database is carefully examined, only 15% of the opportunities are growing at twice the industry rate, and only 4% are growing at three times the industry rate. This tends to highlight the difficulty in selecting growth opportunities from the large body of opportunities in the industry.

Once identified, it is important to recognize that all opportunities are not equally attractive to all companies. This is because each company brings a different set of strengths and weaknesses to the analysis. For example, each company has different sales and marketing strengths in specific market segments, or different formulating strengths with specific raw material families, or different manufacturing strengths in specific formulative technologies. It is a careful consideration of the company strengths versus the growth opportunities that help to identify those that are worthy of investment consideration. The ChemQuest methodology used in this rigorous methodology will be the subject of a future article.

In a worst case scenario, a company may find that there are few-to-no attractive opportunities that overlap the strengths of the company. In that case, the database is equally well suited to help the company identify technologies it should consider licensing, or companies it should consider acquiring so it can participate in higher growth opportunities.



About the Author



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Founder of The ChemQuest Group, Inc., Bill has worked with clients worldwide in the Coatings and the Adhesives and Sealants industries on issues ranging from acquisitions and divestitures to strategic market development and growth decision. He has been a frequent speaker on market dynamics and management for major industry associations and is quoted regularly in trade publications. Dr. Broxterman is a graduate of Xavier University with B.S. and M.S. degrees and received a Ph.D. from Purdue University. He held Director level management and strategic planning positions at Borden Chemical and research and development management positions at Dow Chemical prior to founding ChemQuest.

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