

Who Will Win the US Residential Water Treatment Wars?

A Strategic Look at Who is Best Positioned for the Future in an Industry Distracted by Recession and Competition

Regardless of where you sit in the residential water treatment industry, the past four years have been exceptionally complicated. Whether you own or manage a business focused upon residential treatment, you've probably had to make some hard decisions about how to structure during a recession and how to play your cards right in order to survive and eventually make up for lost ground. As you prepare to do battle each day against the market and competitors, there are few moments to step back and think about where you sit in the overall scheme of things and how you fit into a constantly shifting marketplace. This article attempts to take a strategic look at the US market for residential treatment equipment to sort out which types of business are best positioned for the long haul, and which are marked for increased pressure and steady decline. The results might surprise you (see Figure 1).

By Andrew Warnes

For decades, the US has been the number-one market for residential water treatment equipment in the world, and continues to maintain its position, despite the scramble for market share in fast-growing economies, like India and China. Due to factors like size, wealth, regulation and depth of the market, the US market will most likely continue to be number one for a significant time to come. While market penetration rates are high today relative to other markets, they are still relatively low compared to penetration rates for other major consumer product categories (Figure 1).

What is changing in the US is the amount of money each player in the market can expect to make moving forward, and how hard they will have to fight to make it. The days of rigid paths to markets and fat, fixed margins are over. What's left is a fast-paced, service-based, price-sensitive, information-driven and fluid market, where traditional players are often outside their 'comfort zones.' In many respects, the center of financial gravity in our industry has shifted away from an oligarchy of manufacturers toward the players who actually come into physical contact with customers on a daily basis. While this phenomenon is not new to other industries, it is still relatively new to the residential water treatment industry.

In 1999, the *Harvard Business Review* published a seminal article entitled *Go Downstream: The New Profit Imperative in Manufacturing*. When the article appeared more than a decade ago, many businesses were struggling to come to terms with the impact of the *World Wide Web*, the rise of offshore manufacturing, and the changing nature of interactions with customers. In general, the authors warned that manufacturing was becoming an automated and value-driven process with diminishing returns—and that in the future, more and more revenue was going to come from aftermarket services and supplies, as opposed to revenue generated at the initial point of sale. To illustrate the point, the *Harvard Business Review* article selected three products to drive the message home (see Figure 2).

What the article highlighted was the fact that only a relatively small portion of revenue for many products is actually generated at the point of sale, and that very few manufacturers at the time were positioned to capture revenue throughout the lifecycle of their products after the initial sale. In short, manufacturers were focused upon driving down costs to increase margins, when instead they should be focused upon higher margin activities farther down the distribution and service channels. In many cases, a manufacturer could potentially make more in the aftermarket than they ever could make by sticking to what they knew best: manufacturing and distribution.

In a traditional manufacturing environment, the enemy of

Figure 1. US market penetration perspective
(Latest data available, from 2008 WQA Consumer Survey Data, with a two-to-three-percent margin of error)

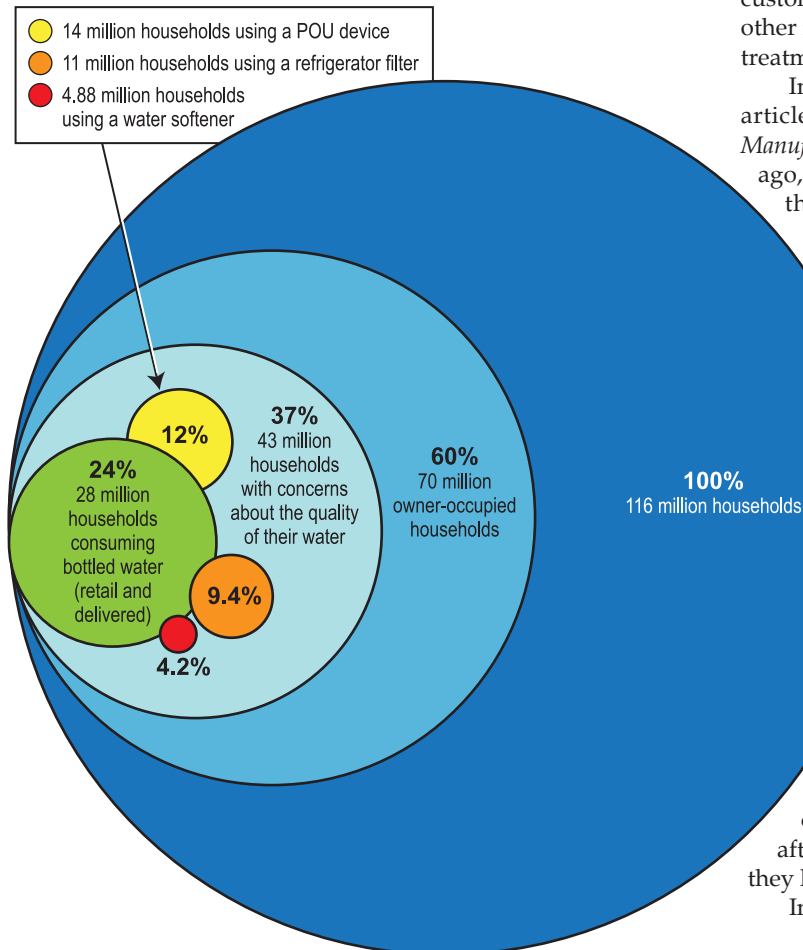
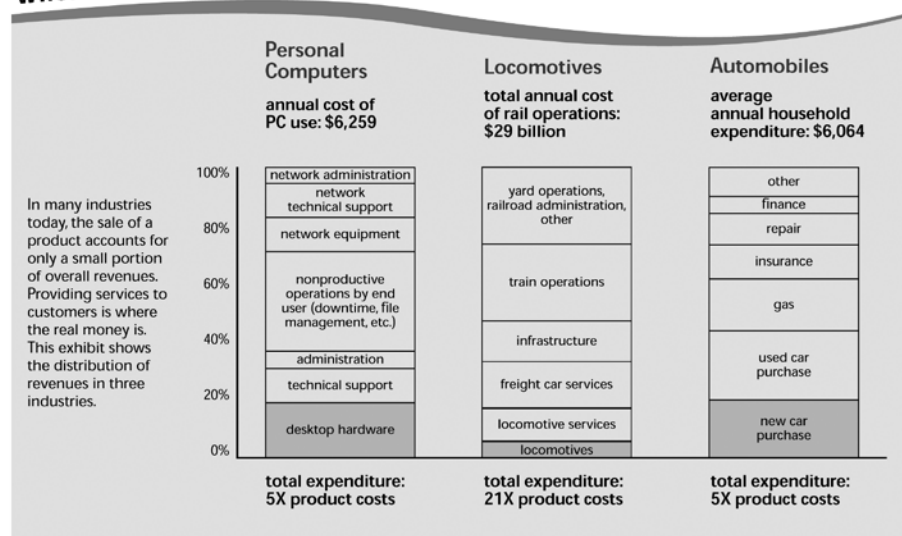


Figure 2. From the *Harvard Business Review*

Reprinted with permission from *Go Downstream: The New Profit Imperative in Manufacturing* by Richard Wise, Peter Baumgartner, *Harvard Business Review*, September 1999.

Where the Money Is



Source: GartnerGroup, Association of American Railroads, Federal Highway Administration Office of Highway Information Management. Railroad expenditures are for Class 1 railroads.

high margins is often exactly what it takes to capture aftermarket revenue: customer service, customized products, marketing differentiation and management of many small accounts. A traditional manufacturer that is not focused upon downstream revenue wants to avoid these activities as much as possible, even though the new market imperatives demand that they can no longer continue to operate in this manner.

The residential water treatment industry in the US is no stranger to the conflicts between manufacturing revenue generation and downstream revenue generation. During the past several decades, we saw several manufacturers push downstream to maximize revenue, often to be met with failure and frustration. At one time, USFilter and others were competing to buy out dealerships with defined revenue streams, while others made the push into retail sales. These efforts generally brought the manufacturer closer to the end user, gave them brand presence and facilitated capture of non-manufacturing profits. For many, going the corporate-dealer route involved a steep learning curve, from which most learned that a manufacturer cannot adapt to the aftermarket without radically altering many basic business practices (HR, IT, distribution, finance, etc.). They quickly got a taste of what the aftermarket requires in terms of investments in marketing, administration, trucks and equipment, miscellaneous overhead, liability and non-traditional working hours—and they often came to the conclusion that the increased investment in non-manufacturing activities was more than they could stomach or had the talent to manage effectively. Those manufacturers that chose the downstream retail route also faced a steep learning curve that included management of product returns, enormous margin pressures, investments in point-of-purchase (POP) displays and sales tools, and the ongoing risk of replacement by other suppliers at any time. In many respects, the past decade has served to teach our industry that the grass is not always greener on the other side of the market channel fence. What these forays into the various market channels has taught manufacturers is that to go downstream effectively, they need to approach the effort in an all-or-nothing manner. Attempts to go downstream without modifying company structures or without potentially offending existing customers, without external partnerships or without significant investment in non-manufacturing activities, have just not worked.

Some may ask, “If it’s so hard to do and such a headache, why would a manufacturer bother to try and go downstream at all? Why not just stick to what they do best?” The answer is that long term, none of them can afford to stick solely to manufacturing and expect to grow in today’s marketplace. If they stick to manufacturing they will always face steep margin pressure and diminishing returns—there is always someone else out there who can do what they do better, cheaper or faster. Big manufacturers do have the option of innovating their way to growth and market share, but innovation is often not their forte. They can outsource innovation by buying out smaller innovators, and risk killing the small innovative businesses they buy with their internal processes and limitations. An insightful quotation attributed to Winston Churchill states that “Americans will always do the right thing—once they have exhausted all possible alternatives.” In that vein, residential water treatment equipment manufacturers

have had a decade or more to explore all of the alternatives and now need to act. The potential revenue for them is so great that at some point, the market will force them to do so.

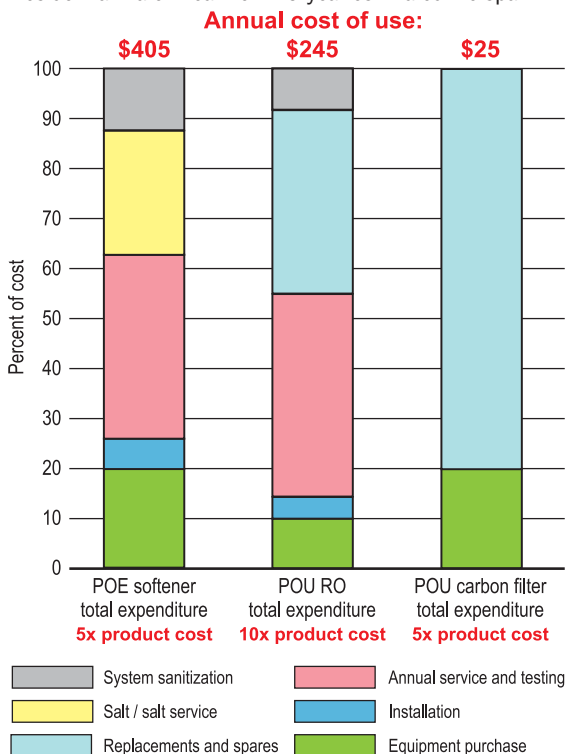
By looking at residential water treatment equipment value streams like the *Harvard Business Review* article authors looked at other products, it’s easy to see the potential rewards for a manufacturer who can make the leap downstream. And by looking at the residential water treatment equipment market in the way the article authors looked at other industries, several key points become clear:

- Only about one fifth of the total lifecycle revenue generated by a residential water treatment product is generated by the initial sale, leaving the vast majority of potential revenue to be collected by those other than manufacturers.
- In a tough economy, initial sales slow while the number of total products installed is fixed and continues to grow. The manufacturer, in essence, has less room to grow than those downstream.
- Manufacturers currently use intermediaries to serve end users, but generally the intermediaries are free to pick and choose their suppliers. To gain a portion of aftermarket revenue, manufacturers need to engage, co-opt, emulate and/or bypass intermediaries.
- When municipally supplied water and bottled water are factored in, residential equipment sales and aftermarket revenue combined make up only about 12.1 percent of the annual total that US consumers spend on water. There is plenty of room left to grow.

What some consider the key difference between our products and those of other industries are the variations in regulation and water quality that occur from site to site. Such variations do not inhibit PC, television or appliance manufacturers from moving downstream and are, therefore, a significant barrier to the same thing happening in the water treatment industry. In some regards this is true; variations from site to site will always dictate that local expertise will be required. But this factor has not prevented retail sales of water treatment equipment from taking an estimated 50 percent or more of the market away from the professional water treatment dealer channel in the past two decades (an estimated 30 percent of the softener market and a much larger percentage of

Figure 3. Where the money is (part 1)

Residential water treatment 10-year estimated life span



the POU market). In the long run, it's worth considering that retail sales have hurt manufacturers by depressing prices and margins, while at the same time deploying more equipment for professional dealers to service. The manufacturers may have gained volumes (in the short to medium term), but dealers benefited from a much larger customer pool, from which they can claim aftermarket revenue the manufacturers are not configured to reach. In short, dealers as a group are positioned to make much more money for a much longer period of time than the manufacturers are—variations in local water quality reinforce this.

Barring any massive future technological changes in the residential water treatment industry, the battle lines for revenue growth are likely to move downstream from manufacturing and into the relatively fragmented and underdeveloped aftermarket. Companies currently serving the aftermarket tend to be small and independent, and therefore unlikely to be able to make marketing and business automation tool investments on a scale that manufacturers can, making a manufacturer's jump downstream all the more attractive (in order to be able to deploy such resources).

How the battle for downstream revenue and customer access will develop has yet to be decided. It is too soon to tell, and a number of models could develop. It's interesting to look at the various players involved to consider their competitive advantages.

Classifying industry players according to their strengths and weaknesses helps explain how some of the newer models for moving into the aftermarket are pushing for market share. Currently, of the four major categories of businesses currently pursuing a piece of the \$7.1-billion-dollar residential water treatment equipment pie, manufacturers, OEMs and bottled-water manufacturers seem best positioned to extend into the aftermarket. These three types of companies currently engage in the greatest number of critical activities needed to pursue

Figure 4. Where the money is (part 2)

US potential residential revenue model (who makes what from equipment)

Estimated annual consumer spending:

| | |
|--|------------------------|
| Softener equipment | \$800,000,000 |
| Softener services and finance | \$3,400,000,000 |
| RO equipment | \$250,000,000 |
| RO services and finance | \$2,500,000,000 |
| POU carbon initial equipment | \$100,000,000 |
| POU carbon spares (potential spending) | \$40,000,000 |
| Total estimated US annual consumer spending | \$7,090,000,000 |

Softeners

Estimated portion of annual spending going to:

| | |
|--|------------------------|
| Manufacturers and OEMs | \$400,000,000 |
| Dealers and others for sales and service | \$3,770,000,000 |
| Finance | \$30,000,000 |

POU reverse osmosis

Estimated portion of annual spending going to:

| | |
|--|------------------------|
| Manufacturers and OEMs | \$125,000,000 |
| Dealers and others for sales and service | \$2,500,000,000 |
| Finance | NA |

POU carbon

Estimated portion of annual spending going to:

| | |
|------------------------|----------------------|
| Manufacturers and OEMs | \$91,000,000 |
| Retail points of sale | \$140,000,000 |
| Finance | NA |

Reference points

Estimated annual US spending going to:

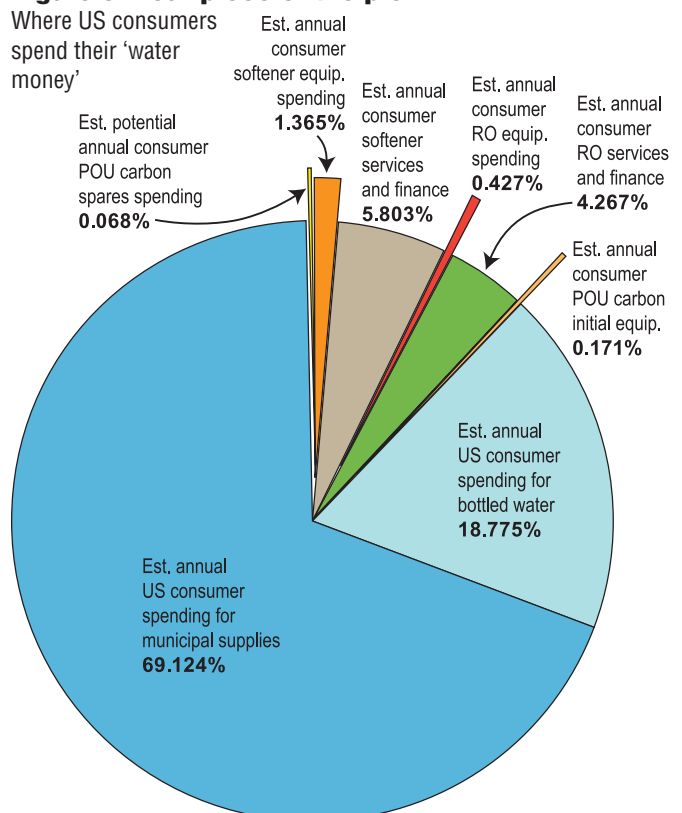
| | |
|----------------------------|------------------|
| Bottled water | \$11,000,000,000 |
| Municipally supplied water | \$40,500,000,000 |

Estimated annual spending linked to equipment sales and to whom it is going:

| | | |
|--------------------------------------|-----------------|-------|
| Manufacturers and OEMs | \$616,000,000 | 8.7% |
| Dealers and service providers | \$6,270,000,000 | 88.4% |
| Finance | \$30,000,000 | 0.42% |

Figure 5. Your piece of the pie

Where US consumers spend their 'water money'



consumers directly (see Figure 6). The big question is: are any of them willing to spend the money and endure the short-term pain of trying to go downmarket? As they ponder their options, a number of models are sprouting up to fill the vacuum created by indecision.

The Home Depot SFI (Sell, Finance and Install) hybrid initiated with Kinetico and Aquion (RainSoft) dealers harnesses the shelf space and traffic of a major retail player with the technology of a manufacturer and the feet-on-the-street capabilities of individual dealers. The 3M Cleaner World model leverages the 3M brand with CUNO technology and various plumber/dealer capabilities. Major water bottlers, like Nestlé and Canadian Springs, are experimenting with models that combine their brand recognition, delivery capacity and monthly billing strengths. ChungHo and Hyundai have made consistent pushes into the Professional Dealer Channels, and Chlorox®, which has the right to the Brita brand in the Americas, has licensed the brand to Haws for the launch of a Brita Hydration Station into the market. Each of these companies appears to have conducted an internal analysis of critical activities (as illustrated in Figure 6) and is assembling partnerships that ensure reach down to the end user, and the elimination of unnecessary players.

All of the evolving models incorporate a local service

professional, which seems to have been determined as critical by the big players, and represents significant growth potential and job security for companies that specialize in direct relationships with end users. As manufacturers and others move downstream in unique and potentially massive ways, there is a space carved out for those who serve the end user. Dealers and others who are professional, well organized and can work according to a fixed fee schedule for their services will be in demand.

Many of the evolving market models seem destined to deliver water treatment as a service for a fixed monthly fee, and each combines brand power and financial muscle with feet on the street. The evolution of these hybrid models to capture full product lifecycle revenue holds significant opportunity for companies and individuals who have mastered customer contact and on-site service. Each initiative will require local resources for national rollout, and professionals who align themselves accordingly could benefit from major lead-generation campaigns and accompanying brand power.

Water technology manufacturers can partner for gains in volume, but will suffer the same margin pressures as usual. Of all the interested parties, it appears that water treatment OEMs are in for the roughest ride. Few of them have an established brand, few of them have direct-consumer focus, most are limited

Figure 6. Who does what

Identifying the suppliers of critical activities needed to serve residential water treatment equipment end users

- A primary activity that the company likely engages in during its regular course of business.
- A primary activity that the company could engage in but is not focused upon or has limited resources for.
- A primary activity that the company does not engage in or does not have resources for.

| Category and estimated total number of physical locations in the US | Type of business | Est. number of locations in the US | Design new-to-world systems with IP compliance | Submit and maintain overall regulatory compliance | Ensure local regulatory compliance | Generate attractive, accurate and legally compliant consumer marketing materials | Market directly to consumers | Stock product | Sell directly to consumers | Deliver to home | Bill consumers | Maintain consumer relationship | Supply spares | Provide comprehensive warranty | Point-of-entry (POE) equipment activities | Assemble | Test water / recommend device | Install in the home | Service in the home | Finance consumers |
|--|--|------------------------------------|--|---|------------------------------------|--|------------------------------|---------------|----------------------------|-----------------|----------------|--------------------------------|---------------|--------------------------------|---|----------|-------------------------------|---------------------|---------------------|-------------------|
| Feet on the street Businesses with personnel and vehicles capable of serving many individual end-user locations 96,340 locations | • Professional water treatment dealers | 8,613 | | | | | | | | | | | | | | | | | | |
| | • Well drillers | 10,745 | | | | | | | | | | | | | | | | | | |
| | • Pump sales and supply | 1,796 | | | | | | | | | | | | | | | | | | |
| | • Plumbers | 14,259 | | | | | | | | | | | | | | | | | | |
| | • Kitchen / bath contractors | 16,564 | | | | | | | | | | | | | | | | | | |
| | • Home builders | 44,363 | | | | | | | | | | | | | | | | | | |
| | • Bottled water suppliers / manufacturers | 12,123 | | | | | | | | | | | | | | | | | | |
| Technology suppliers Businesses with significant expertise but little or no ability to directly serve many individual end-user locations 1,225 locations | • Residential water treatment equipment manufacturers | 118 | | | | | | | | | | | | | | | | | | |
| | • Residential water treatment OEMs | 1,107 | | | | | | | | | | | | | | | | | | |
| Shelf space Businesses with actual or virtual retail space and significant consumer traffic; little ability to serve many individual end-user locations 33,175+ locations | • Contractor / wholesale supply | 5,563 | | | | | | | | | | | | | | | | | | |
| | • Big-box retail stores | 6,450 | | | | | | | | | | | | | | | | | | |
| | • Hardware stores | 21,162 | | | | | | | | | | | | | | | | | | |
| | • Online retailers | ? | | | | | | | | | | | | | | | | | | |
| Billing power / legitimacy Businesses with ability to finance, bill and/or recognized water supply expertise, but no significant interest, focus or penetration into residential water treatment equipment supply 54,455 locations | • Municipal water suppliers | 53,000 | | | | | | | | | | | | | | | | | | |
| | • Bank / finance companies with consumer-durables programs | 1,455 | | | | | | | | | | | | | | | | | | |

geographically and reside between manufacturers compelled to go downmarket and the end user. Serious study and thought has gone into the newly evolving market models cited above, and none of them incorporates the OEM step that evolved over the past 40 years. Expect a lot of conflict ahead as legacy manufacturers watch new players go to market more directly, while grappling with the fact that their biggest customers (the OEMs) are their biggest obstacles to moving downmarket

What remains to be seen in the months and years ahead is how groups of water treatment dealers might band together to form their own channels to market; how innovative manufacturers work out new ways to attain aftermarket revenue; how OEMs fight back; or how municipal drinking water suppliers might seek to get in on the action. The one constant in all of this is change, though the speed at which it comes might surprise us all.

Bibliography and notes

1. Estimates of market size are by the author.
2. WQA 2008 *National Consumer Water Survey*, Water Quality Assoc.

3. US Department of Commerce, US Census.
4. Nestlé Water: <http://www.accupure.com/>
5. Canadian Springs: <http://www.canadiansprings.com/filtrationsystems/products.html>
6. 3M Cleaner World: <http://www.3mcleanerworld.com/store/index.jsp>
7. ChungHo: <http://chunghousa.com/>
8. Hyundai Air and Water: <http://www.hyundaiwaterandair.com/index.htm>
9. Brita Hydration Station: <http://www.britahydrationstation.com/>

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