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Mars and VCA: Welcome to industry consolidation 101

Veterinary firms are becoming more concentrated—fewer in number and larger in size. Here's a look at why it's happening and what the impact might be.

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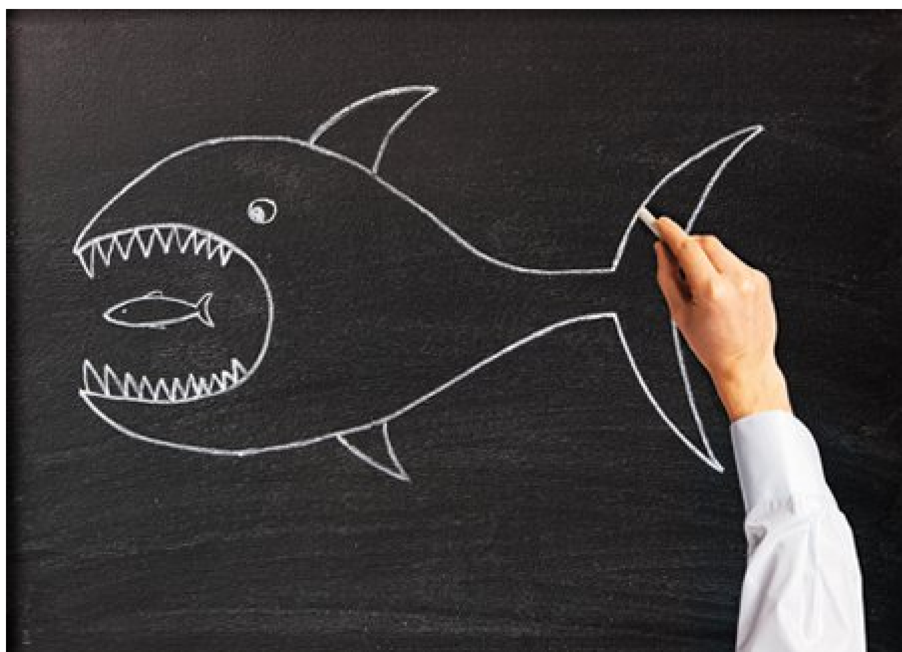

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Recent news of the purchase of VCA, based in Los Angeles, by Brussels-based Mars Petcare has stimulated considerable discussion in the veterinary profession. Generally, the concerns seem to be about the potential effect of this consolidation on the ability of the veterinary profession to maintain its current level of performance: What will be the impact on the profession?

Here I've taken a top-line look at the Mars-VCA deal and the profession's consolidation trends from an economist's point of view. Doubtless as we gather more data from external sources and develop our own data sources within veterinary medicine, we will gain additional clarity on the profession's structure and evolution. But while the numbers may change over time and allow us to dive deeper into the details, there's no reason to wait to begin an informed discussion of the impact of consolidation on the veterinary profession.

First, a (mostly painless) economics lesson

Let's look at a few definitions. The *structure* of an industry is defined as the number and size of its firms—in our case, the number of veterinary businesses. *Conduct* is how the firms within an industry behave. The *performance* of an industry is measured in terms of quantity and price outcomes—how many goods or services are produced and at what price? Put these terms together and you have the *structure-conduct-*

performance (SCP) framework, which gets scrutinized when changes to an industry's structure affect its performance.

In a perfectly competitive industry, all firms offer equal levels of products or services and compete only on price, and consumers receive what they desire at the lowest price. With only one firm in the industry, a monopoly, the firm sets the price of its output to maximize profit; the quantity produced is less than what a perfectly competitive industry would produce and the price of these products is higher. Hence, as the structure of an industry becomes more concentrated (fewer and larger firms), prices increase and output declines.

When does structure affect performance?

The American idea of a "competitive" market is one with many small firms that yield the greatest amount of output at the lowest possible price through competition for the consumer's dollar. As the industry becomes more concentrated (larger and fewer firms), competition declines, along with the quantity of output, and price rises. The question becomes, when does concentration adversely affect competition and thus price and quantity of output?

One frequently used measure is the *four-firm concentration ratio*. If the combined output (sales) of the four largest firms is less than 40 percent of the total industry output, the industry is considered to be competitive. A second method is the *Herfindahl-Hirschman index* (HHI), which calculates concentration ratios by squaring the market share (individually) of the 50 largest firms in an industry. A score under 1,800 is considered competitive and the score for a monopoly would be 10,000. The HHI of the veterinary profession is estimated at 86.8, indicating a very competitive industry.

Some important factors

Both of these methods of computing industry concentration are conditioned on other aspects of the industry, including:

Ease of entry. An industry may have relatively few participants but low barriers to entry. In our industry, any veterinarian may elect to be a practice owner and any practice owner may elect to consolidate or combine with other practices. Thus the concentration measures will overstate the power of larger firms.

Elasticity of demand. Concentration ratios do not factor in the elasticity of demand and the availability of substitutes. Veterinary services are mostly limited to being provided by veterinarians, and all animals are in “need” of veterinary services. To the extent these services are provided by nonveterinarians, the implications of the concentration measure are overestimated.

Imprecise definitions. A narrowly defined industry will appear to be more concentrated than a more broadly defined industry. While a large percentage of veterinary practices are companion animal practices, many are not (amounting to one-third of industry output), so the measures of concentration in veterinary services appear less concentrated than they may be for practices involved only in companion animal medicine.

Impact of the new merger

According to the Census of Services, there were roughly 28,000 veterinary firms with more than 30,000 “establishments” in 2013. And over the last 15 years, the annual rate of growth in veterinary firms and establishments has been roughly 1.2 percent and 1.5 percent, respectively, for an estimated 28,962 firms and 31,775 establishments at the end of 2016.

The consolidation of Banfield (with an estimated 1,000 establishments) and VCA (with an estimated 715 U.S. establishments) produces a combined set of firms with approximately 1,600 establishments, less than 6 percent of total establishments. In all, our forecast of census data estimates that in 2016 there were 17 firms with 500 employees or more that owned 2,146 establishments (see Table 1).

Source: AVMA Veterinary Economics Division

Table 1: Structure of the veterinary industry in 2016

Size of firm	Firms	Establishments	Paid employees	Total output per establishment	Total output
All firms	28,835	31,772	336,632	$1.0 million	$33.4 billion
0-4 employees	9,273	9,279	18,686	$232,186	$2.2 billion
5-9 employees	8,445	8,454	57,694	$655,248	$5.5 billion
10-19 employees	7,750	7,913	103,564	$1.2 million	$9.4 billion
20-99 employees	3,263	3,729	98,883	$2.5 million	$9.4 billion
100-499 employees	88	251	13,502	$6.4 million	$1.6 billion
500 or more employees	17	2,146	44,304	$2.5 million	$5.3 billion

	Employees per establishment	Veterinarians per establishment	Total veterinarians	Gross output per veterinarian
0-4 employees	2.0	1	9,279	$232,186
5-9 employees	6.8	1.7	14,423	$384,060
10-19 employees	13.1	2.6	20,713	$454,374
20-99 employees	26.5	5.3	19,777	$473,958
100-499 employees	53.7	10.7	2,700	$596,192
500 or more employees	20.6	4.1	8,861	$593,854
Total			75,753	$13.7 million
Average		2.38		$440,255

Furthermore, according to census estimates, in 2016 there were 336,632 employees in 31,772 veterinary establishments and an average of 3.4 staff per veterinarian, giving rise to 2.4 veterinarians per practice or roughly 75,890 veterinarians. Considering the new Mars-VCA group, using the average veterinarians per practice from VCA (five full-time equivalents [FTEs] per practice) and assuming the Banfield practices are similar would yield approximately 9,000 veterinarians (12.4 percent).

Market share is not determined by the number of employees, however, but rather the share of total output. And the share of total output from the 17 largest veterinary firms (2,146 establishments) is 16 percent. However, there are no data on the market penetration of establishments. That is, the gap between the need for pet care and the demand for that pet care could be different across practices; thus the 16 percent market share value applies only to business as is, not how it might change over time.

Other factors affecting SCP

Economic activity can be coordinated by markets or by individual firms. A firm organizes input production factors so as to produce and market goods or services. Firms with large market share have greater control of supplies in the vertical market chains, which increases their control of pricing and output decisions in the industry. That Mars Petcare and VCA own pet foods and provide 17,000 practices with lab work are just two examples of how the measures of concentration underestimate the potential impacts on conduct and performance.

Many very smart people in industry ask themselves, “How can I get more out of the same resources?” Consolidation is occurring in veterinary medicine because someone has discovered how to get more out of veterinary practices than was achieved previously. In essence, one firm has decided to capture efficiencies that the industry has not, by “coordinating economic activity.” This firm has found a means to organize input production factors to more efficiently produce and market goods and services.

There are three basic types of means for organizing production factors more efficiently and achieving economies of size: technical, pecuniary and technological. Technical economies use current resources more efficiently by combining practices’ finance, human resources, inventory management and other shareable tasks, thereby reducing the cost of these services per unit of veterinary services.

The second type are pecuniary economies, which are characterized by purchasing or selling in large quantities. A firm with many establishments has greater purchasing power with suppliers.

Finally, there are technological economies. The bigger you get, the better access you have to the best technology. It’s easy to see how a company with $2 billion in gross sales can better afford to try the latest $200,000 technology, while the firm with $1 million in gross sales may struggle with that same decision.

These three means of achieving economies of size have been used by every industry to consolidate—to keep prices low while improving returns and boosting the firm’s competitive position. So there is a benefit to consumers. When industry concentration reaches the point where four or five firms own more than 40 percent of the market, however, the market changes to an oligopoly. In this case prices may rise and services decline in quality, quantity or both.

Small firm competitive strategies

The SCP framework is not unidirectional, and firms should consider how their own conduct and performance affect industry structure. Rising prices in veterinary services at rates exceeding inflation have reduced the quantity of veterinary services demanded. This has created an unserved and underserved market for low-cost veterinary goods and services.

The typical veterinary business’s focus on profitability rather than return on investment has created an opportunity for consolidators to capture unmet demand by achieving lower cost through economies of size. The move to a more concentrated structure is, at least in part, due to the behavior and performance of existing firms. To the extent that the existing firms can develop business models to attract more clients and provide more goods and services at lower cost, concentration will slow.

Concentration in the veterinary services industry arising from both internal and external equity will likely occur at an increasing rate as the successful consolidation model becomes more widely known. However, there is likely a limit to how many establishments can be efficiently managed from central services in the veterinary industry—the market reach of each establishment is limited and the demographics of those markets are diverse. One model will not fit all establishments with equal efficiency.

If consolidation in veterinary services follows the trend in other service industries, the current consolidation of individual-establishment firms into firms with many establishments will be only the first round of consolidation. The Mars-VCA merger represents the second round, where firms with many establishments begin to consolidate, speeding up the move to a concentrated market power.

Veterinarians, as noted previously, are the sole authorized providers of veterinary services. As such they can control the conduct and performance of the industry and have considerable influence on the industry structure. If they continue to focus on maximizing the profit per client rather than on maximizing the number of clients and meeting all the healthcare needs of each animal—and don’t do this more efficiently through gaining economies of size—there will be continued opportunities for external equity to gain share in the market.

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