People, Proficiency, Profits, and Protecting the Environment: Can We Help Industry Balance These 4 Ps?

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Which industry seems to have been amazingly proficient at enhancing the value that it has offered to customers over the past decades, but has itself struggled to make money?

Which industry has conversely been quite profitable over the past decades, but has seemingly not been as proficient at keeping costs in check?

Which industry (or firm) has been both proficient and profitable, but has come under fire for the way it has treated its people (workers) and the environment?

As President Hopp notes in his address on page 1 of this issue, current times call for a new vision of creative destruction. From a societal perspective — and accordingly from a long-term profitability perspective — it is not enough to focus on profits to the exclusion of people. This is evidenced by the unemployment situation that POMS President Hopp mentions, and further evidenced by the backlash that firms have experienced when carrying out employment practices that are perceived to be questionable (see further discussion below regarding Wal-Mart, and also see Rafael Mendez’s “Practice” article in this issue of the POMS Chronicle). And as evidenced by the runaway costs that we are experiencing with healthcare, the combination of profits plus people is not enough either — a prolonged satisfactory outcome must also consider the cost proficiency with which the product is offered. All three (people, proficiency, and profits) are needed if a firm or industry is to achieve prolonged success — and to boot, let’s not forget that prolonged success also hinges on another “P,” protecting the environment.

To answer the first two questions posed earlier in the introduction above, the industry that seems to have been amazingly proficient at enhancing value to customers but has failed to turn a prolonged profit is — you guessed it — the airline industry. The industry that conversely has been quite profitable but has been less proficient at keeping costs in check is of course healthcare. For some time now I’ve thought it might be an interesting exercise to compare these two industries along multiple dimensions, so I did a bit of a search and found the following data.

First, consider profitability. As shown in the graph of stock prices in Exhibit 1, in the aggregate the stocks of the major airlines are currently about where they started two decades ago while the healthcare industry has experienced more than a ten-fold rise in stock appreciation (see End-note 1). In terms of profits, the airlines get an “F,” while healthcare gets an “A.”

Next let’s compare and contrast the cost proficiency of these two industries over the past decades (see End-note 2). As shown in Exhibit 2, U.S. healthcare costs have risen at a rate of about 7% per year per person over the past decade (1998-2008), while the cost of air travel has remained relatively constant. In fact, when adjusted for inflation, air travel costs seem to have come down significantly from what they were several decades ago. In terms of cost proficiency, I would give the airlines an “A,” while healthcare has seemingly failed us. For a humorous but revealing contrast of the airlines and healthcare industries, see the article “If Air Travel Worked Like Health-Care,” referenced in End-note 3.

The third comparison is related to another element of proficiency — product quality (see End-note 4). Continuing to refer to Exhibit 2, the accident rate for air travel has had a strong downward trend over the past decade, with the current global rate being about one-half of what it was only a decade ago. Say what you want about lost baggage, or about airline food (or the lack of it), but in my book, the dramatic cut in
the accident rate over-rides these other “nuisances,” such that I would give the airlines a high mark. Similarly, one can make an argument for giving a good mark to the quality of healthcare — while it is hard to see in the graph (Exhibit 2), U.S. life expectancy has increased from about 70 years in 1960 to roughly 75 years in 1990 to the current 78 years.

Of course, if you were reviewing this article for a peer-reviewed Journal, you would challenge some of the data and ask me to fine-tune some of the comparisons (for example, I’d want to account for the ageing population, and for the impact of Regional carriers on the major airlines).

Exhibit 1: Stock prices for Health Services versus the Major Airlines

Exhibit 2: Proficiency of the Healthcare Industry versus the Airline Industry

However, the implication remains — what is interesting to me is that while the airline industry has (per my perception) extensively used OM principles, the benefits seem to have largely accrued to consumers.
In contrast, while more recently there has been a concerted push to use OM principles healthcare, the use of OM in healthcare seems to have historically been less prominent. (As an anecdotal example, note that American and United Airlines have both won the INFORMS prize in the 1990s while to my knowledge no healthcare firm has done so.) But in spite of this, the healthcare industry has profited handsomely.

My take-away from all this is that we have more “integration” work left to do to help firms “find the right balance.” Another example of a possible imbalance is the performance of Wal-Mart. From a “proficiency” perspective it has performed admirably, and this has contributed to its stock performance as shown in Exhibit 3. However, its performance along the “people” dimension seemingly opened it up to public backlash (see End-note 5), and Wal-Mart seems to be working hard to repair its image (repairing an image is not an easy thing to do, as both Toyota and Tiger Woods can probably testify).


Which brings us to the final “P,” that of protecting the environment. To its credit, one of the things Wal-Mart is actively pursuing in this balancing act is its management of suppliers along the dimension of sustainability. And Wal-Mart is not the only firm concerned with protecting the environment — two prominent (but voluntary) initiatives that are helping engage firms along this dimension are the Global Reporting Initiative (GRI) and the Carbon Disclosure Project (CDP) — see End-note 6. As shown in Exhibits 4 and 5, the number of firms voluntarily participating is growing quite dramatically.

Exhibit 4: The number of firms voluntarily participating in the GRI is increasing yearly.
Regarding Wal-Mart’s efforts, in 2009 Wal-Mart scored 4-th from the top in the CDP scoring. But are its efforts (and those of other firms) enough? Note that carbon dioxide emissions continue to grow (see Exhibit 4) — as MIT Professor Sterman’s “bathtub analogy” suggests (see End-note 7), we need to be reducing emissions rather than growing them. Have we adequately helped firms find the right balance?

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Exhibit 5: The number of firms participating in the CDP is increasing, but so are CO₂ emissions.

Marketing has the 4 Ps of product, price, promotion, and place. In a similar vein, the discussion above suggests that from an operations perspective, we might help firms balance the 4 Ps of people, proficiency, profits, and protecting the environment — only through proper balancing of these will the firm, its industry, and society at large experience prolonged success.

End Notes:

1. The Hemscott industry group 520 includes MG521, Medical Inst and Supplies, MG522, Medical Appliances and Equipment, MG523, Healthcare Plans, MG524, Long-term care facilities, MG525, Hospitals, MG526, Medical Labs and Research, MG527, Home Health Care, MG528, Medical Practitioners, and MG529, Specialized Health Services.

2. The air travel price index is published by the Bureau of Transportation Statistics: [http://www.bts.gov/xml/atpi/src/datadisp.xml?i=1](http://www.bts.gov/xml/atpi/src/datadisp.xml?i=1). Data on healthcare costs are from the Kaiser Family Foundation, [http://www.kff.org/pullingittogether/021610_altman.cfm](http://www.kff.org/pullingittogether/021610_altman.cfm)


7. See Professor Sterman’s web page at climateinteractive.org.