

PUBLIC NOTE

Why Loyalty Programs Don't Work

Peter Lewis

peter@plraresearch.com



This month Abhijit Banerjee [shared a Nobel Prize](#) for the use of field experiments in global humanitarian work. His first published paper in 1987, with Larry Summers, was about frequent flyer programs:

This paper presents a model of loyalty-inducing arrangements as collusion-facilitating devices. The basic intuition is simple. Inducing loyalty enables firms to split the market and so to charge higher prices. Price cutting becomes less attractive when customers' costs of switching between products is increased.

That's one straightforward way to model loyalty programs, and the other is to treat them as kickbacks for business travelers: your employer reimburses the ticket, but you keep the miles.

How do we know it's not just about kickbacks? They point out several reasons, but the simplest one is that "awards increase more than proportionately with mileage":

For most of the airlines, an increase of 50% in the number of miles flown leads to a doubling in the value of the travel award. At lower mileage levels, the increasing returns element in the reward structure appears to be even more pronounced...

The pure kickback theory provides no satisfactory explanation for why award structures are typically nonlinear. Indeed, the kickback motive would suggest that award should be proportional to the number of trips taken so that even infrequent travelers could be attracted.

When you sign up for a loyalty program, you probably have some intuition that you're playing one or both of those games, right? They're paying you to spend someone else's money, or they're paying you not to shop around.

This may not be an ideal system, but at least it's coherent. What I want to argue here is that in the thirty years since this paper, the way loyalty programs have evolved across other sectors — first into more of a marketing function, then into vague “data science” portals — has not only made them ineffective at those two core functions, but usually not much good for anything else either, from the perspective of the customer or the business.

Let's look at two sectors in particular: retail and hotels.

RETAIL

For the most part we're spending our own money at retailers, so with a few exceptions (like the toys in a Happy Meal) it's safe to say that the kickback function isn't a major factor.

The second thing to notice is that retailers are at a disadvantage to airlines with respect to in-kind rewards. A plane seat that would otherwise go empty is worth a lot more to you than it costs the airline to let you have it. But when a retailer gives away or discounts a product, they've still paid just as much for it as if they had sold it at full price.

And retailers are more exposed to another effect that Banerjee / Summers point out: repeat customers “almost certainly have less elastic product demands than do other customers, so price discrimination arguments suggest that they should face high not low prices.” Some people have a favorite airline, but is that as strong a preference as an iPhone or a favorite brand of jeans?

So it's probably not a surprise that the most active retailer loyalty programs are found in more high-frequency, commoditized categories like groceries or gas stations — where the rewards are often minimal, and they rarely offer that same rising-return structure that could lock customers in. And when you get to the less frequent discretionary categories — like fashion, sporting goods, or electronics — “loyalty marketing” collapses even faster into regular marketing, and from there into straight discounting.

HOTELS

Hotels are a lot more like airlines than retailers. They have similar exposure to reimbursed business travel (and thus the kickback feature) and a similar type of constantly expiring inventory with low marginal costs (empty seats, empty rooms) that lowers the cost of in-kind rewards. And like airlines they're selling an extended service/experience, so they have lots of other cheap things to tweak, like free headphones on the plane or free bottled water in your room.

(Note that many of these things have no direct cost at all, because they're just pitting their customers against each other; if "elite" loyalty members board the plane sooner or get better rooms, that reduces the expected outcome for everyone else.)

One key structural difference between airlines and hotels is that the hotel industry is largely franchised. And if you think about it from the standpoint of the brands, that should make their loyalty programs even more valuable, because they have two sides to exploit. Hotel owners are reimbursed according to complex formulas when you redeem points, and in a sense their position is not so different from yours as a traveler: playing a difficult game at an information disadvantage, in an artificial currency they don't control, with more ways to lose than to win.

As you'd expect from all that, hotel brands are more committed to their loyalty programs than retailers, and they structure them more like airlines, with rising tiers and non-linear rewards.

But as these programs extend further beyond their core target market of "road warrior" business travelers, you're seeing them collapse into marketing gimmicks in many of the same ways as retailers. The marginal member is now more likely to be in other programs already, more accustomed to searching across multiple brands, and harder to impress with the same rapidly-copied perks they've seen everywhere else — which makes the average member less valuable, which feeds back into "pointflation" that also frustrates the road warriors, and so on.

Some of those owner/manager conflicts exacerbate the problem, and you could argue that they've also fed into oversupply, irrational pricing and capital allocation, and in turn the rise of the online travel agents, third party management companies, "soft brands," home sharing startups, and all the other ways that the whole system is fracturing and becoming even more complex.

Maybe the core problem is just that hotels are not a natural oligopoly like airlines, and they've already pushed as far as they can in translating market share into pricing power. There's always an escape valve. It's a lot easier to build a new hotel (or even launch a new brand) than it is to start a new airline.

One way to summarize all that is that retail business models are too simple relative to airlines for loyalty programs to be effective, and the hotel business is not simple enough. But you could also just say that they're both more competitive than airlines, and even a successful equilibrium of locked-in customers with excess profits would be less stable and harder to sustain.

In fact, much of the real substance of that paper was using game theory to show how the ultimate function of this loyalty-induced price coordination at airlines was to discourage new competitors from even entering their routes, replacing a barrier they had lost a decade earlier with deregulation. They refer to other industries in passing (including hotels and retail) but it could be that this was always more of an airline-specific trick.

So why are there still so many loyalty programs if they don't create value? I can think of two reasons.

One is that they facilitate rising interchange fees for credit cards, which are a different kind of market failure and arguably a much larger one. Many of these branded loyalty cards are more about the cards and less about the brands than it may appear.

And the second is the rise of data-driven marketing, which has convinced businesses that the *surveillance* value of your loyalty membership is much higher than it really is. So whatever perks or discounts they're giving you for "loyalty" are really in exchange for your personal information (probably more of it than you think) to use for more targeted emails. And if the price seems low, remember that they're still probably overpaying, because you're not likely to read those emails anyway.

To be clear, this is not what Banerjee and Summers were focused on. They worried that loyalty programs would work *too* well:

The relative importance of the loyalty and kickback elements in accounting for the success of frequent flyer plans is of academic interest. However, both rationales for these plans imply that they are inimical to economic efficiency. Facilitating collusion almost certainly reduces welfare as well as transferring resources from consumers to producers. Exacerbating agency problems that firms have in dealing with their employees by offering bribes increases socially inefficient spending on monitoring as well as causing workers to make socially inefficient travel plans... it seems very likely that taxing award travel as the income it is would improve economic efficiency.

I think they're right about this larger point:

The analysis here suggests that long term bilateral relationships may not always be a technological necessity. Instead they may be a byproduct of successful collusion facilitating strategies.

But in the specific case of loyalty programs, I would now argue for the opposite concern. Even for airlines they seem like less of an anticompetitive issue today (compared to just consolidation, for example) and in other sectors they're now more of a threat to the brands relying on them than to anyone else.

(See [Part 2](#) for more on the hotel side. And thanks to Tyler Cowen for [highlighting this paper](#) ahead of his [interview with Banerjee](#).)

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