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DRAFT

Majority Report

This chapter discusses the most fundamental patterns in buyer behaviour. Simple, almost universal rules with far-reaching implications for everything we do in marketing. The evidence presented here is the result of almost six decades of scientific research investigating the repeat buying of thousands of brands in hundreds of categories and in many countries. It includes recent results from two loyalty studies revealing the role that vast numbers of light buyers play in building sales over time. The aim of this chapter is to focus attention on this forgotten majority. Without them, you would not have a brand.

That doesn't look normal...

I was holding a jar of pesto: 'Best before March 19 2012.' After unscrewing the cap, it took only one look to realize this stuff would end up in the bin. I shouldn't have bothered to look. After all, it was already March 24...

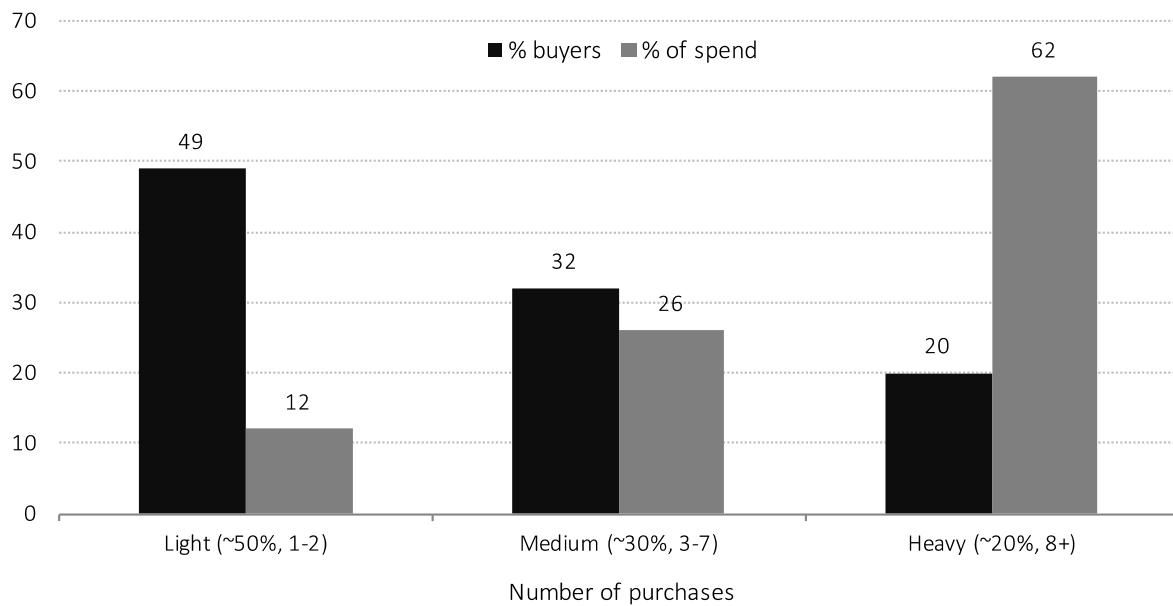
... 2018.

Hundreds of products must have passed through that fridge. Yet, over the last six years this little jar has spent its time safely tucked away in the corner, blocked by other, more frequently used products. I had completely forgotten about it. What other purchases could I remember making from six years ago? Not many. I suspect very few other people could either. If I asked how often you had bought a particular brand or category you would probably overestimate your recent purchases and underestimate those from longer ago (Sudman & Bradburn, 1973). Most shopping, especially in consumer-packaged goods, can be characterised as routine and habitual. This might lead us to think that many people frequently buy the same brand. Let's put that assumption to the test.

What does normal look like?

Below is an example from my work in a non-alcoholic beverages category to illustrate what a typical customer base looks like for a popular brand. About 1.5 million people bought this brand over the course of a year, although, it turns out, at very different rates, some buying far more frequently than others. Figure 1 presents the data in the familiar reporting splits of light-, medium- and heavy buyers.

Figure 1: heavy buyers contribute most to sales



Source: The Commercial Works client data, beverages, 2016, 52 weeks buying.

Here, the biggest bar immediately grabs our attention. First, because it represents sales, our primary interest, and second because it supports the familiar story that the heaviest 20% of buyers contribute by far the highest proportion of them. They are the brand's most valuable and important customers, and therefore an obvious market target. For many the "Pareto" narrative may be the only take-out from the figure because this type of reporting split encourages confirmation bias – seeing only what we expect to see – by focussing attention on the heaviest buyers, the loyalty success story.

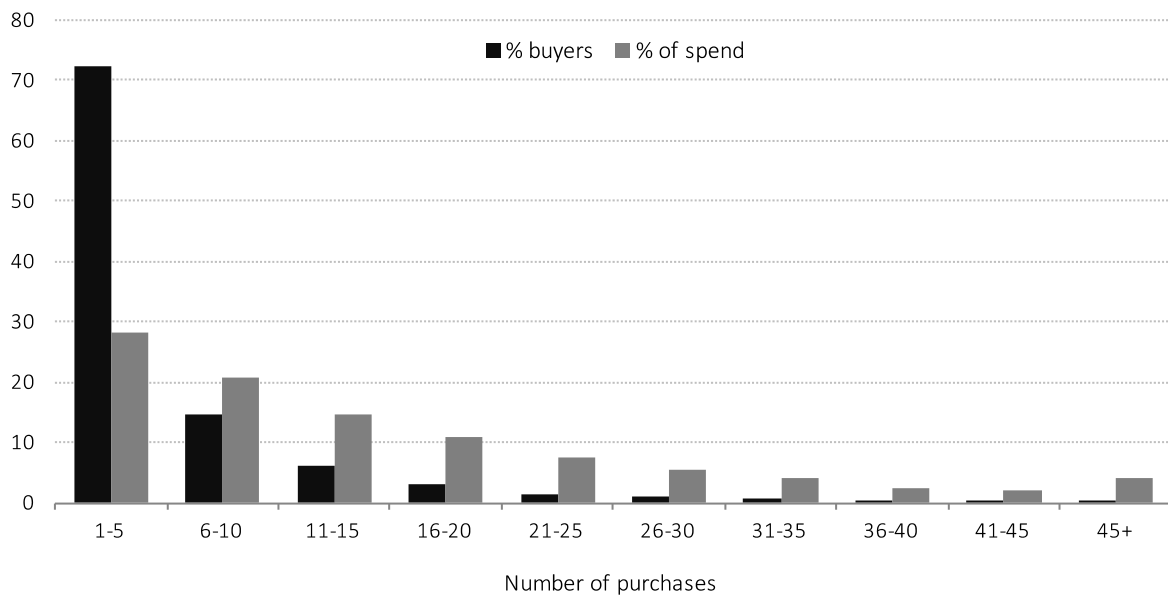
Let's look more carefully at two other take-outs from the same chart. First, the top 20% of customers have a less-extreme Pareto share than business school has taught us. It is not 80:20 but 60:20. This may not in itself be a danger sign (*Help!* Our heaviest buyers are not loyal enough) since a less extreme ratio is well supported by evidence (Schmittlein et al. 1993; Sharp & Romaniuk, 2007; Steenkamp, 2017). Importantly, it almost certainly **does not** mean that we should invest precious marketing resource in purchase frequency (at least, not yet).

Second, at the left side of the graph, we see a far less appealing picture. Half the annual customer base bought this brand just once or twice, to deliver only 12% of total sales – the smallest bar on the chart, and a lot of effort for a very small return. This group appears to warrant little of our attention.

Except that it is quite usual for half of the customer base to buy just once in a year (Romaniuk, 2003), and although we might be tempted to disregard these light buyers by slicing up the numbers in this way, it is a mistake that could cost the brand dearly.

Figure 2 shows the same data in a more granular form, with the proportion of buyers and their relative sales contributions grouped by purchase frequencies. Now, a different picture emerges.

Figure 2: light buyers matter a lot



Source: *The Commercial Works client data, beverages, 2016, 52 weeks buying.*

This distribution gives a far clearer picture of loyalty. The brand is well known yet almost three-quarters of its buyers bought it five times or fewer, together realising nearly 30% of annual sales. This seems surprising (it was for our client) yet marketing science says that it is quite normal. The pattern is closely predicted by a statistical curve, the Negative Binomial Distribution - or NBD (Anscombe, 1950) and every brand’s customer base is like this (Ehrenberg, 1959; Ehrenberg, 1988; Ehrenberg, 2000; Sharp, 2010; Dawes, 2017). The main implication is simple: light buyers matter a lot.

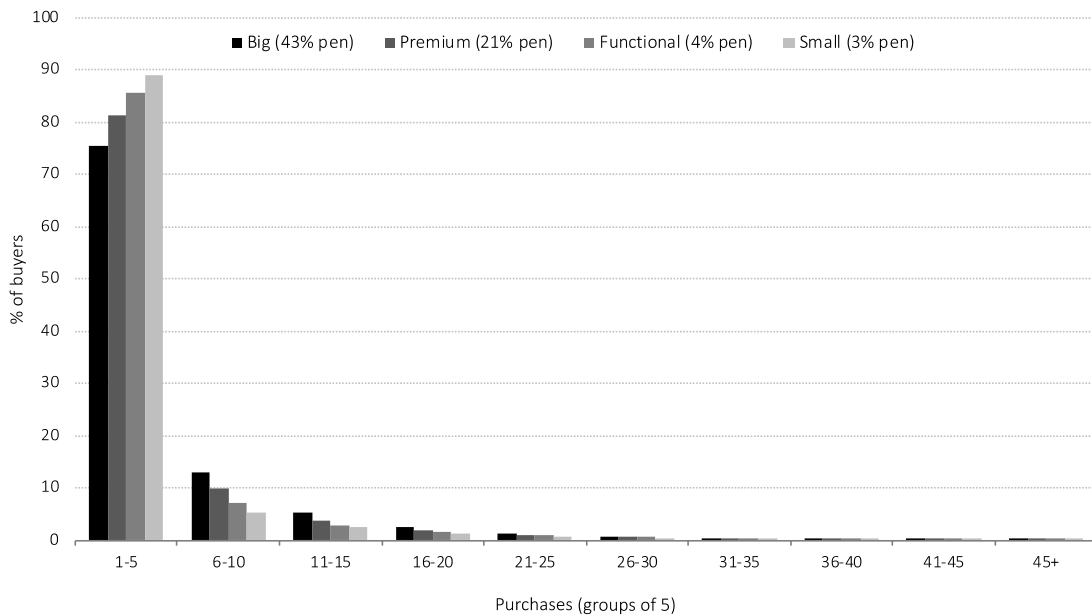
Marketers may be easily tempted to focus on the people who buy often because they engage frequently and account individually for important sales volume. This is the heavy buyer fallacy, the tendency to overlook the fact that most customers are lighter buyers who together buy enough to matter a lot, as figure 2 clearly shows – and Figure 1 does not. Since every customer base follows the NBD, brand share must depend on attracting light buyers. Sure, the heaviest buyers are important but every brand must also reach out a long way to nudge in its lightest buyers from competitors (Binet & Field, 2009).

One further evidence-based finding is that individual households don’t buy at the same rate from period to period. Roughly half of the heaviest buyers will be lighter the following year, but lighter buyers will then become heavier. This is known as buyer moderation, or regression to the mean (Bevelin, 2007; Kahneman, 2011; Sharp, 2010). The main implication is not to think of your individual buyers as being fixed in their frequency of weight or -purchase. They largely aren’t, and so it is unhelpful to target this year’s heavy buyers – it is better to target all category buyers instead, as we will show.

Special brands

Some might wonder if the NBD applies to ‘special’ or niche brands with high loyalty in their DNA. The answer is clear from figure 3. We looked at more brands in the same beverage category, analysing twelve in four sub categories: 1) high share 2) premium 3) functional – often with digestive benefits (e.g. tomato juice) and 4) smallest - or niche. Each bar represents the average proportion of the customer base at each purchase frequency for three competing brands in the sub-category.

Figure 3: all brands have a very similar customer base



Source: The Commercial Works client data, beverages, 2016, 52 weeks buying. Each bar represents the weighted average of three competing brands. Brands do not overlap.

The figure shows that the brands in each sub category - and hence each part of the market - attract the same type of loyalty; the shape is very much the same. No matter what sort of beverage you are selling, or how you position it, by far the largest part of the customer base bought five times or fewer that year. So if buying your favourite beverage brand about once a month seems quite restrained, it actually makes you a heavy buyer.

Big brands are proportionally less dependent on very light buyers. The leftmost, black bar shows that roughly three-quarters of the biggest brand's buyers bought five times or less, where for the smallest this percentage reached 90%. It is exactly the other way around for the other bars in the chart. There, big brands have the largest proportion of buyers in each other group.

The one rule that rules them all

And this is the robust, law-like pattern in buyer behaviour known as the law of Double Jeopardy. Small brands suffer twice, just because they are small. They have fewer buyers than big brands and those buyers are, on average, a little less loyal (McPhee, 1963; Ehrenberg, Goodhardt & Barwise, 1990; Sharp, 2010). The sets of four bars in the chart describe four sub-categories each with very different numbers of buyers - from high share through differentiated to low share - but because loyalty is always distributed in this way over whatever buyers the brand does have, the bars can be seen as a blueprint for brand growth or decline (McDonald & Ehrenberg, 2003).

This is the one rule that rules them all. Or, as Andrew Ehrenberg wrote in the final pages of *Repeat Buying* (Ehrenberg, 1988):

“Of the thousand and one variables which might affect buyer behaviour, it is found that nine hundred and ninety-nine usually do not matter. Many aspects of buyer behaviour can be predicted simply from the penetration and the average purchase frequency of the item, and even these two variables are interrelated.”

The relationships and patterns in buying behaviour are so regular that they can be successfully modelled and the predicted values used to understand and benchmark actual or future brand performance measures (Goodhardt et al., 1984; Bhattacharya, 1997; Ehrenberg et al., 2004; Jung et al., 2010; Sharp et al., 2012). The patterns underpin much of the evidence presented in Byron Sharp's book *How Brands Grow*, and are incorporated in the underlying theory of the NBD-Dirichlet model, labelled as one of marketing science's greatest achievements (Sharp, 2010). This chapter will not dive into the details of the model, but one of its most intriguing and counterintuitive assumptions is that markets are stationary. In the next section, we will see what the patterns we have discussed can tell us when we look at multiple years of buying and investigate a well-known brand that grew substantially.

Multiple years of buying

If buying is so predictable, what does it say about people like me, who perhaps only buy pesto once in six years? Or indeed people who use pesto quite regularly, but only bought that cheaper brand once in six years because the other one was out of stock? How unusual is that? And how valuable or important can it be to that brand?

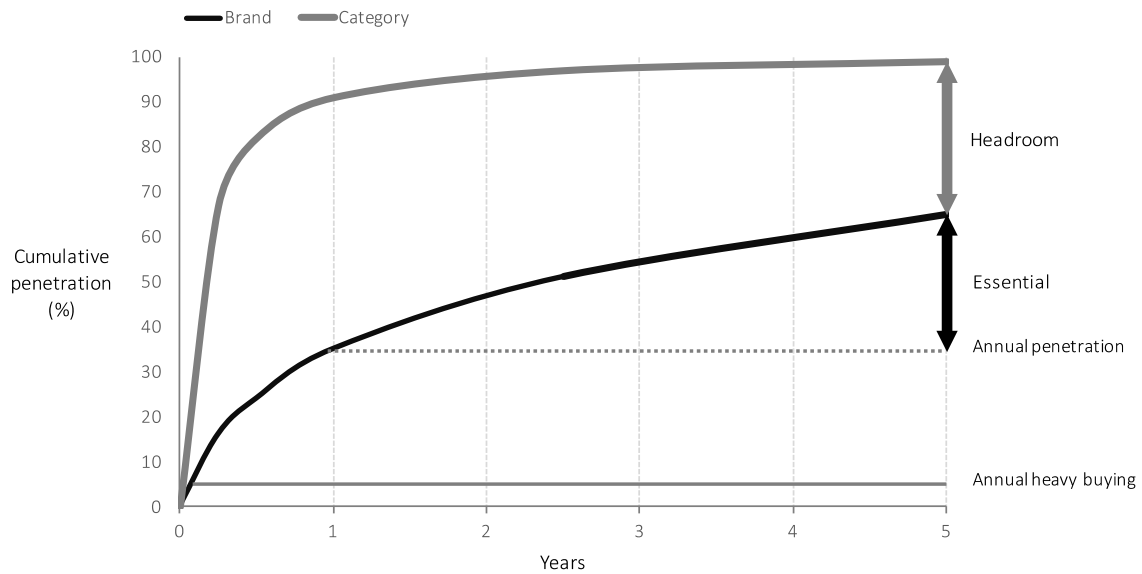
Not easy questions as most panel data is reported on a yearly or quarterly basis, although panels now do monitor purchasing behaviour over quite long periods. Charles Graham has been looking at loyalty where the outcomes matter most – over the long term – and has made three important findings about light buyers (Graham et al., 2017).

1. Light buyers have an important cumulative effect on brand penetration.

Penetration just keeps on growing as ever-lighter buyers keep joining the brand for the first time. For stationary brands in stationary markets penetration can often double between a quarter and a year, and double again between one year and three to five years, even though, from year to year, market share and most other brand performance metrics remain stable. That might sound like an anomaly but your user base must keep on growing just to maintain share.

Figure 1 explains penetration growth effects over time. The grey curve represents the rate at which the category picks up buyers, very fast at first and it soon reaches near saturation. By contrast, the black, brand penetration curve moves slower, and is still growing even at year five. This brand is a leading detergent, it reaches a third of UK households in a year. We see its curve crossing the 35% line at year one, and the flat dotted line represents its stable annual penetration. This shows that every year the brand reached about a third of the population, although its annual penetration was made up of different households each year – many drop out to come back later, and many come back in from earlier years, or for the first time. The obvious implication here is that it makes no sense to target on the basis of one year's sales. Typically, you haven't even met half of your eventual customer base.

Figure 4: essential brand building and headroom for growth



Source: Kantar Worldpanel – UK detergent – 2009 to 2014 continuous buyers only

Of course, some heavy buyers are heavy every year, but even they do not account for all the buyers under the lower dotted line, the households buying 5+ times in a year (horizontal, solid line). Even this proportion will be a different household mix each year.

So, the figure demonstrates two important jobs to be done: first, essential brand building means maintaining the trajectory of penetration growth. Second, in order to grow, that trajectory must be accelerated into the headroom to attract even more category buyers, a bit faster each year. The continuous addition of so many lighter buyers also says quite a lot about loyalty, leading us to the second finding.

2. Even over time, light buyers are an important part of the buyer mix

The study looked at 220 brands in 22 categories over five years. It found the same story in every one. Even though over five years there is ample opportunity to make a second purchase, across all the brands, 45% of the average customer base still consisted of buyers who had bought that brand just once.

Table 1 illustrates the importance of ultra-light buyers – those buying between once and five times in five years. It turned out that they account for almost 80% of the total customer base, with the biggest difference (as before) in the class who bought just once. The NBD and Double Jeopardy still apply.

TABLE 1: ultra-light buying

220 brands in 22 categories	Percentage of households buying (n) times in five years					Ultra-light buyers
	Once	Twice	Three	Four	Five	(%)
Category buying	17	9	6	5	4	41
First brand	32	14	9	6	5	66
Fifth brand	45	16	8	5	4	78
Tenth brand	53	15	8	5	3	84
Average (ten brands)	45	15	8	5	4	77
Sales importance (%)	15	9	6	5	4	39

Source: Kantar Worldpanel –2009 to 2014 - continuous buyers only

3. Heavy buyers are less important to sales than we may think

The Pareto share we discussed earlier never reaches 80:20. In the long-run, loyalty is important - repeat buyers contribute disproportionately to sales, of course - but even in this cumulative data they didn't deliver much more than 60% of purchases. This means that the lightest 80% of buyers account for about 40% of stationary brand sales and the implications are clear. Light and super-light buyers matter a lot to brand performance- maintaining share depends on accumulating light buyers to build penetration.

So, what happens to loyalty if a brand accelerates into the headroom – and grows?

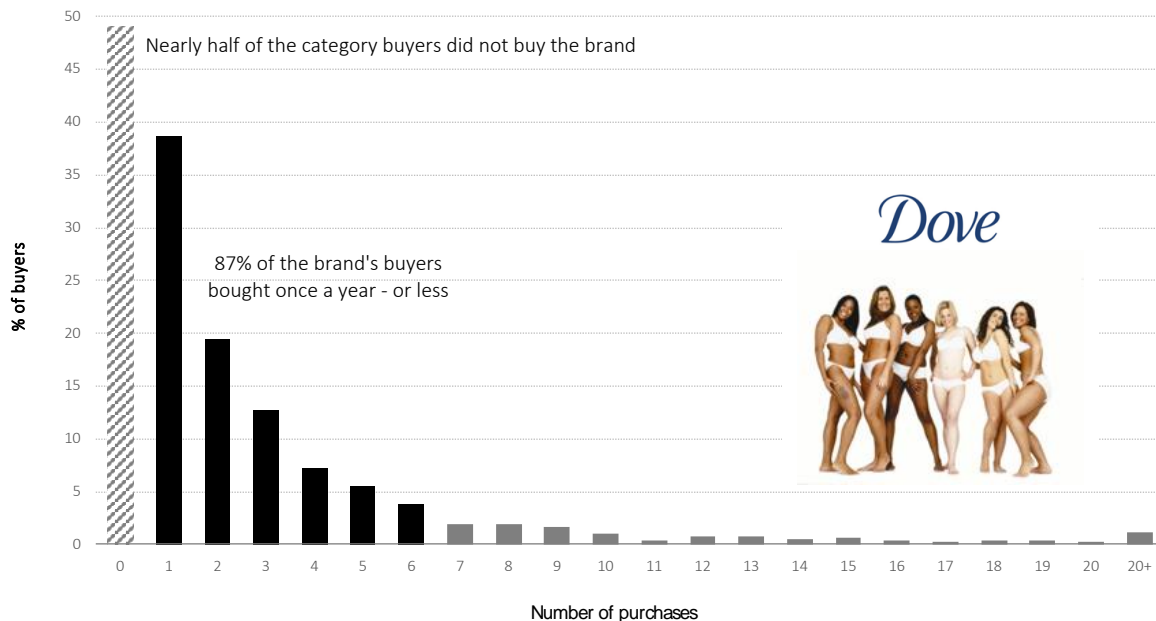
Staying ahead of the curve

Take a brand like Dove for example, shown in figure 4. During the period analysed, this brand grew its share by 50% and ran its famous and numerously awarded Dove for Real Beauty Campaign (Adage, 2014) yet Graham's data shows that a little over one-third of Dove's buyers still only bought it once.

Only once. In six years.

And over 80% of Dove's buyers bought the brand at the rate of once a year or less. This group turned in more than half of their sales! So despite being highly differentiated, the shape of loyalty in Dove's customer base remained normal, and the brand grew not by developing exceptional repeat buying from existing customers but mostly by attracting new, but largely very light buyers.

Figure 5: ultra-light buying for Dove



Source: Kantar Worldpanel – continuous buying only

In Figure 4 we have added an extra bar, the tallest of them all. It shows category buyers who didn't buy the brand during the period. Many will buy the brand in the future but the rate at which they are attracted in determines whether the brand will grow, decline or maintain its share. The size and nature of this target is a golden opportunity for marketers. The potential to grow is as tall as the bar. There is no need to educate the market at great expense either. These households already know the benefits of the product because they use it, and most buy it regularly from an established repertoire of brands. They have probably seen *this* brand advertised and on store shelves, so it may be quite familiar, but they just have not tried it yet. How can they be encouraged to – even just once? This has big implications for the margin you should be willing to give up for that first purchase.

Ever since Ehrenberg first published about it in 1959 – when Elvis topped the charts with Jailhouse Rock – the importance of light buyers has been known to those who cared to look. However, these new findings reveal that the case was actually understated. Brand owners will need to come to terms with this 'unbearable lightness of buying', and realise they should first and foremost be concerned with reaching and nudging all those potential buyers. Not surprisingly, one of our clients did ask: 'but from whom will we steal all those buyers?' We will answer that question next.

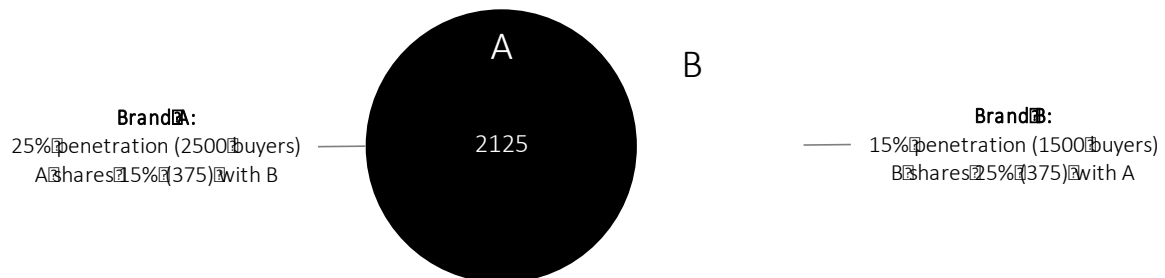
Stealing (light) buyers

The big idea behind segmentation, targeting and positioning is that it helps drive more sales through the exceptional loyalty of a subset of buyers in the market (Aaker, 2001; Carpenter et al. 1994; Kotler, 1996; Reeves, 1961; Ries & Trout, 1986). You essentially signal 'I understand you, look what I've made just for you' in the hope that these buyers will be so delighted that they choose never to switch to a competing brand again. They will become your buyers.

Unfortunately, the evidence clearly says that this is not what happens. It tells us instead that your buyers are the buyers of other brands who occasionally buy yours (Ehrenberg, 2000). So does it matter if you sell a functional or a premium brand? Or both? Take the beverages category again: most brands shared buyers during that analysis period. The extent to which they did so can be measured in a Duplication of Purchase analysis (Ehrenberg, 2004; Sharp 2010).

First, here's the assumption: in a perfectly competitive market, brands should share buyers in proportion to their size, not their attributes. There are no segments in which buyers choose only certain brands and absolutely no others. Figure 6 illustrates the concept and how to check this.

Figure 6: how brands share buyers in proportion to their penetration



Although the number of shared customers is the same, the proportion of the customer base being shared differs according to the size of the brand – so small brand B is sharing a larger proportion (25%) of its buyers with the bigger brand A, which is sharing a smaller proportion (15%) the other way. Markets consist of many brands but even so the assumption is that brand size must determine the sharing relationship consistently for every pair if they are true (competing) substitutes.

A manager that is unaware of this pattern might look to her budget, her objectives and the current market and, assuming it to be segmented, choose to:

- target the buyers of smaller brands (maybe on the basis that they will be easier to steal)
- target bigger brands (they have more buyers to steal),
- target the buyers of brands with a similar offering or positioning, or
- target existing customers in order to prevent all that sharing in the first place.

So, let's have a look to see where brands found their additional buyers over five years of marketing investment. Table 2 shows, along each row, the proportion of the five-year brand customer base shared with every other brand. Making up the matrix in this way i.e. in brand size order reveals the sharing between each brand pair. A five-year duplication table like Table 2 has seldom been seen before, and the picture is instructive.

The first thing to notice is that there are numbers in each cell: all brands share their customers with all other brands. Furthermore, the sharing reveals nearly perfect competition because it is mostly in line with brand size. At the bottom of the table (last row) the predicted values (there is a model) can be compared to the column average and to specific cells. Deviations are small and so there is a strong relationship between actual and predicted values (for the statistically minded: the correlation is 98%).

Table 2: duplication of purchase in deodorants

% buyers of ↓ who also bought →	Sure	Dove	Soft And Gentle	Nivea	Vaseline	Dove Go Fresh	Tesco	Rightguard	Mum	Mitchum
Sure		51	49	39	26	23	18	18	10	10
Dove	63		47	38	27	28	16	15	10	10
Soft And Gentle	69	53		43	29	25	20	20	12	9
Nivea	73	57	57		34	29	20	22	12	12
Vaseline	71	58	55	49		29	18	22	11	11
Dove Go Fresh	70	69	54	48	33		19	20	12	9
Tesco	66	49	52	39	26	23		19	12	10
Rightguard	80	53	62	52	36	28	22		8	12
Mum	60	45	48	38	25	23	19	11		11
Mitchum	63	49	41	39	26	19	16	18	11	
Average	68	53	51	42	28	25	19	18	11	10
<i>Predicted</i>	69	56	49	37	26	22	19	16	12	11
<i>Deviations from predicted values</i>	-1	-3	2	5	2	3	0	2	-1	-1

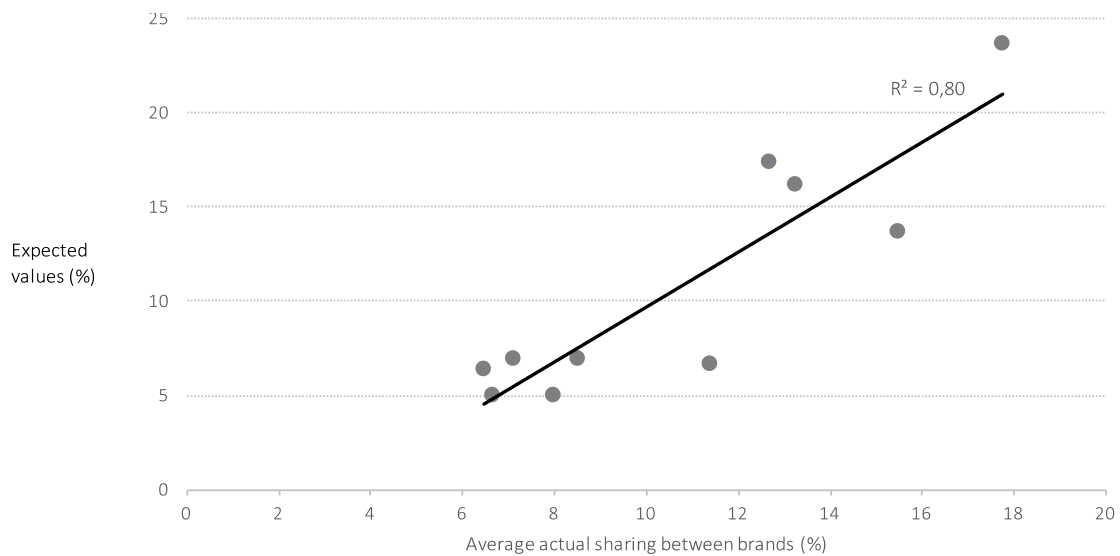
Source: Kantar WorldPanel: Continuous UK buyers 2009-14

This means that, despite the competitive brand positionings, no distinct groupings that might represent customer segments emerged. Brands shared category buyers across the market. The biggest deviation in the table is for Dove Go Fresh – it shared 69% of its buyers with its parent brand against an expected value of 56%: in other words, it was cannibalising brand sales, by not competing across the market. The table shows that there is little evidence that over the five years brands have done anything but build their customer base from the pool of all category buyers to maintain or grow share.

Who is loyal to grocery brands anyhow? Services are very different

An often-heard comment is that these laws are helpful, but of course they only describe markets with a lot of repeat purchasing. The evidence does indeed show that buying differs between markets, polarizing them into either repertoire (CPG categories categorised by switching within a brand portfolio) or subscription (buyers subscribed to one supplier over time until a switch e.g. financial services or utilities). In subscription markets the patterns (NBD, double jeopardy and duplication of purchase) still hold (Sharp & Goodhardt, 2002), although they apply in rather slow motion. Figure 7 provides an example from car insurance showing the close relationship between average duplication i.e. sharing and its predicted values; loyalty to car insurance providers is no different.

Figure 7: duplication of purchase in car insurance



Source: The Commercial Works client-data, car insurance, 2016.

The correlation analysis tells us that 80% of sharing is line with what we would expect; so competition is defined more by brand size than by any special brand positioning. The relationship is less strong than in the five-year duplication table (table 2), but this is more due to the relatively small sample (1.500 people) and the fact that car insurance is a market where certain brands apply very stringent rules about who they will or will not accept. Because car insurance brands therefore also largely appear to be constrained by the established patterns this type of analysis provides powerful and useful benchmarks to evaluate acquisition and retention efforts - even in subscription markets. So, for all brands, the main implication of this pattern is to target the market.

How to use these norms and patterns

The law-like patterns I have described are empirical generalisations, developed by marketing scientists like Andrew Ehrenberg and Byron Sharp into usable benchmarks and rules that help decision-making. They are not prescriptive – they don't tell managers what to do. Instead, they are descriptive. They describe what normally happens and what doesn't, so knowledge of them helps to make marketing simpler and more effective.

For example, why plan to change the shape of the NBD? In 60 years of research no brands, from global market leaders to start up challengers have been found with anything other than NBD loyalty. The scientists are still looking: that was the motivation for the long-term studies, but the findings together with everything that went before suggest that long-term brand building succeeds by working with, rather than against, the grain of the evidence. And that evidence still shows that all brands have some easy-to-reach heavy users, but that large numbers of light buyers are critical for brand maintenance and growth: for most of its customer base a brand will be rather like that jar of pesto. Rarely bought and easily forgotten.

Making sense of it all

In 2014, Marketing Week reported that CMOs' average tenure of four years is the shortest in the C-suite; a period during which most customers will have bought their brand four times, but probably less. Who will take responsibility and manage the long game? Peter Field and Les Binet have for years advocated the need for a more long-term view on brand building (Binet & Field, 2007; Binet & Field, 2013; Binet & Field, 2017). In this book, Field describes how the 'short-terminism' in our industry is increasingly killing effectiveness. The findings presented here provide further support for that notion.

The patterns described in this chapter relate to many of the other stories you will find in this book. Now that you are aware of them, you will probably see why some are critical of short-term (ROI) metrics associated with heavier purchase behaviours. The difference in scale between that and the critical, continuous task of accumulating so many light buyers who think very little about the brand should now be in much sharper focus. If you are a great brand, attracting this majority of buyers into your customer base requires a creative single-minded approach to the task of maintaining your rightful place in their minds and on store shelves. Be noticed and be there when you are needed – welcome old friends and reach out to new ones. Don't just talk to your best friends.

Finally, it is of course completely up to you whether you choose to swim against or with the current of marketing science. Either way it's tough out there. You might still drown, but one option requires a lot less effort. So, take a deep breath and dive into this book!

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