

# Benchmarking buyer behavior towards new brands

Giang Trinh<sup>1</sup> · Jenni Romaniuk<sup>1</sup> ·  
Arry Tanusondjaja<sup>1</sup>

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**Abstract** New brand launches are risky endeavors for marketers, as many fail to attract a sustainable customer base. This research examines the buying behavior of customers acquired by a new brand and revisits the theoretical norms of the NBD-Dirichlet model benchmarks. Investigating 40 new brand launches in the UK, across a wide range of brand and category conditions, we find that in the first 12 months, new launches have more, but less loyal buyers than expected from NBD-Dirichlet benchmarks, irrespective of type, price point, or the sales gained by the new launch. Further we find exploratory evidence that new buyers of brands have weaker associations than existing buyers. We propose that the combination of the new experience that lacks distinctiveness in encoding means that the experience of buying the new brand creates weaker memory traces in new buyers and that these buyers need additional marketing reinforcement to consolidate the memory of buying the brand to establish the brand in their ongoing repertoire.

**Keywords** New brand launches · Loyalty · NBD-Dirichlet model · Packaged goods

## 1 Introduction and background

In mature consumer packaged good categories, where brands fight for market share, one popular, albeit risky tactic to increase revenue is to introduce a new brand or variant to the portfolio (Castellion and Markham 2012; Crawford

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✉ Giang Trinh  
Giang.Trinh@marketingscience.info

Jenni Romaniuk  
Jenni.Romaniuk@marketingscience.info

Arry Tanusondjaja  
Arry.Tanusondjaja@marketingscience.info

<sup>1</sup> Ehrenberg-Bass Institute, The University of South Australia, Level 4, Yungondi Building, North Terrace, Adelaide, SA 5000, Australia

1977; Tauber 1988). A brand introduction can serve multiple purposes including the following: appealing to variety seeking behavior so that buyers can buy different brands from the same company within their repertoire (Mason and Milne 1994); guarding valuable shelf-space in stores, as retail stores prefer brands with greater variety to increase foot traffic (Bergen et al. 1996; Hubner and Kuhn 2012; Sorensen 2009); and/or to appeal to a new segment of customers and draw them into the company's portfolio (Kapferer 2012).

Many studies focus on forecasting the performance of new launches (e.g., Ataman et al. 2008; Hardie et al. 1998) or measure the success during the new product launch period (e.g., Beard and Easingwood 1996; Hultink et al. 1999). An adjacent stream of research examines the brand metrics underpinning new launches (e.g., Ehrenberg and Goodhardt 2000; Singh et al. 2012; Wright and Sharp 2001). In an exploratory study, Ehrenberg and Goodhardt (2000) compare the quarterly penetration and average purchase frequency of new launches, with similar metrics from established brands, and find strong similarities in these quarterly metrics. Based on these results, Ehrenberg and Goodhardt put forward the theory of new brands having "near-instant loyalty", namely, that new buyers, once buying, make the brand a habitual part of their ongoing repertoire. This repudiates the view that the purchase of a new brand is a more involved decision that requires specific incentive for the buyer to act (i.e., stimulate trial), and then subsequent to action, the buyer will engage in additional cognitive evaluation to determine if the new brand will be part of the ongoing repertoire (i.e., repeat buying). Instead, Ehrenberg and Goodhardt (2000) equate the first purchase of a new brand with the repeat purchase of any brand, needing no additional incentive, other than raising salience of the brand, to stimulate action. That is, rather than new buyers engaging in extensive post-purchase evaluation, the act of purchase lays down of brand knowledge memory structures that can be used to facilitate the brand's purchase in future buying situations. The propensity of the brand to be bought will depend on how fresh and relevant this brand knowledge is, and the role of ongoing advertising is therefore to keep the brand's memories fresh for all buyers, rather than needing to be persuasive or work to differentiate the brand (see also Ehrenberg et al. 2002).

The results have been extended by subsequent studies employing a similar method (e.g., Ehrenberg and Goodhardt 2000; Singh et al. 2012; Wright and Sharp 2001). For example, Singh et al (2012) classified new launches by their subsequent performance and compared the quarter-by-quarter penetration and purchase frequency for new brand launches with established brands of a similar size and found that successful new launches mirrored established counterparts, while failed launches had lower penetration and repeat buying.

However, this stream of research has two limitations, which are addressed by this study. The first limitation is that comparing quarter-by-quarter penetration and purchase frequency is going to lead to metrics that skew to heavy brand buyers, which might make it difficult to see the longer term loyalty metrics for a more normal customer base with a broader mix of light, medium, and heavy buyers. Therefore, the scope of our analysis is 1 year from launch, which means all brand customer bases include a more normal distribution of heavy,

medium, and lighter brand buyers. While quarterly penetration of new launches and established brands is similar, yearly penetration could be different. For example, if the quarterly proportion of the new buyers of the new launch is larger than that of the established brand, then the cumulative penetration over the year of the new launch will be larger than that of the established brand, despite both the new launch and the established brand having similar quarterly penetration.

The second limitation is that established counterparts are small brands with their own challenges to grow, such as distribution shortfalls, lack of marketing support, or a functional difference that limits appeal, which is why these brands are established at that (typically small) market share. This makes these brands a questionable benchmark for comparison, as it is of little value for a manager of a new launch to compare the brand with other brands that might have limitations that have stalled their market share. To counter this limitation, we draw on the NBD-Dirichlet model to provide the theoretical norms for comparison for key performance indicators (KPIs) of competing brands, such as penetration, purchase frequency, and share of category requirement (SCR) (Goodhardt et al. 1984). The model provides estimates for these KPIs for a brand of its size, and is one of the most well-established mathematical models in marketing (Sharp et al. 2012; Uncles et al. 1995). These estimates are then compared to the actual metrics to identify systematic deviations from the model.

Although the focus of numerous explorations of the NBD-Dirichlet model has been in established markets, it has successfully characterized brand KPIs across various categories and conditions, and has been illustrated as an effective tool to benchmark new brand performance (Ehrenberg et al. 2004). Our scope of analysis covers a variety of categories, price points, brand types, and relative success (as defined by the market share achieved after 1 year). This provides the capacity to examine a larger set of extraneous variables than have been included in past studies.

## 2 Data

From Kantar Worldwide panel data from the UK for the period of 2006–2009, we identified 40 launches (see Table 1). The launches come from ten product categories, including food, beverages, personal care, and pet food. We identify, in the data, when each launch occurred, and use this date as a pivot point for extracting post-launch brand-buying behavior. The new launch brands in this study cover multiple examples across a range of conditions, such as the following:

*Category purchase frequency*—higher and lower rates of buying

*Brand type*—variants of existing brands and completely new brands

*Owner types*—national brands and private labels

*Pricing levels*—low, standard, and premium price options

*Relative success*—lower and higher market shares 1 year after launch

This gave us scope to investigate a wide number of circumstances, but with replications to determine systematic versus one-off deviations.

**Table 1** Description of new launches

Case number	Category purchase frequency	Market share	Category	Target brand	Pricing
1	4.0	0.9	Personal care category 1	Variant of a national brand	Average
2	5.5	1.8	Personal care category 2	Variant of a national brand	Premium
3	37.8	2.1	Drinks category 1	Variant of a national brand	Average
4	27.0	0.2	Pet food	New national brand	Premium
5	4.0	1.0	Personal care category 1	Variant of a national brand	Average
6	37.8	0.4	Drinks category 1	Variant of a national brand	Average
7	27.0	1.3	Pet food	Variant of a national brand	Average
8	5.5	0.5	Personal care category 2	New national brand	Premium
9	5.5	0.4	Personal care category 2	Variant of a national brand	Low
10	5.5	0.1	Personal care category 2	Variant of a private label	Average
11	37.8	0.2	Drinks category 1	Variant of a national brand	Low
12	37.8	0.2	Drinks category 1	Variant of a private label	Average
13	27.0	0.6	Pet food	Variant of a private label	Average
14	27.0	0.2	Pet food	Variant of a private label	Low
15	4.0	0.2	Personal care category 1	Variant of a national brand	Premium
16	4.0	0.2	Personal care category 1	Variant of a private label	Low
17	8.5	1.4	Drinks category 2	Variant of a national brand	Average
18	8.5	1.2	Drinks category 2	Variant of a national brand	Average
19	8.5	0.4	Drinks category 2	Variant of a national brand	Premium
20	8.5	0.1	Drinks category 2	Variant of a national brand	Premium
21	11.3	0.1	Personal care category 3	Variant of a private label	Premium
22	11.3	0.1	Personal care category 3	Variant of a private label	Average
23	11.3	1.2	Personal care category 3	New national brand	Average
24	11.3	2.8	Personal care category 3	New national brand	Average
25	18.7	1.4	Food category 2	Variant of a national brand	Average
26	18.7	0.2	Food category 2	Variant of a private label	Low
27	18.7	0.2	Food category 2	Variant of a private label	Low
28	18.7	0.2	Food category 2	New national brand	Premium
29	10.7	4.2	Food category 1	New national brand	Average
30	10.7	0.4	Food category 1	New national brand	Premium
31	10.7	0.1	Food category 1	Variant of a private label	Average
32	10.7	0.1	Food category 1	Variant of a national brand	Premium
33	7.1	4.7	Food category 3	Variant of a national brand	Premium
34	7.1	0.5	Food category 3	Variant of a national brand	Low
35	7.1	0.2	Food category 3	Variant of a private label	Average
36	7.1	0.2	Food category 3	Variant of a private label	Average
37	5.2	1.6	Personal care category 4	Variant of a national brand	Low
38	5.2	1.1	Personal care category 4	Variant of a national brand	Premium
39	5.2	0.9	Personal care category 4	Variant of a national brand	Average
40	5.2	0.6	Personal care category 4	Variant of a national brand	Premium

### 3 Results

The results show that new launches register higher penetration but lower loyalty than expected (see Table 2 for a summary and Appendix 1 for full results). On average, the observed penetration of the new launches is 3.9, while the estimated penetration is 2.4. Conversely, the observed purchase frequency and share of category requirement (SCR) of the new launches are 1.7 and 11, respectively, while the model estimates are 2.9 and 21, respectively. This shows that the new launches acquire more buyers with lower repeat purchase levels than the model estimates. This was consistent across all the conditions tested.

The new brand launch frequency distribution reinforces this pattern: most buyers (87 %) of the new launches are light buyers in the first year after launch, whereas the model estimate is 70 %. This further proves that new launches tend to attract more buyers, but these buyers purchase less often than expected. This also was consistent across all the conditions tested.

We also investigated whether these results were affected by NBD-Dirichlet model biases, such as a general tendency to overestimate penetration and underestimate purchase frequency of small brands. Comparing the estimates for established brands of similar sizes, we find that the model does show some biases, but these biases are much smaller than the differences we see in the new launches. For example, on

**Table 2** Actual and estimated KPIs of new brand launches across different conditions

	Penetration		Purchase frequency		Share of category		% 1–2 times buyers	
	Act.	Est.	Act.	Est.	Act.	Est.	Act.	Est.
Average ( $n=40$ )	3.9	2.4	1.7	2.9	11	21	87	70
Average of similar brands ( $n=40$ )	2.6	2.4	2.5	2.9	15	21	78	70
Category purchase frequency								
<10 times pa ( $n=20$ )	2.7	1.9	1.4	2.2	15	25	91	77
>10 times pa ( $n=20$ )	5.1	2.9	2.0	3.7	7	17	83	63
Type of launch								
National brand variant ( $n=21$ )	4.4	2.9	1.6	2.6	12	22	89	73
New national brand ( $n=7$ )	7.3	4.1	2.0	3.4	11	21	82	63
Private label variant ( $n=12$ )	1.1	0.6	1.8	3.1	9	19	88	69
Pricing								
Premium ( $n=13$ )	2.5	1.7	1.6	2.8	12	23	90	70
Average ( $n=19$ )	5.6	3.4	1.8	3.0	11	20	85	69
Low ( $n=8$ )	1.9	1.1	1.6	3.0	10	19	89	71
Market share								
<1 % ( $n=28$ )	1.7	1.0	1.7	2.9	10	20	89	70
1–3 % ( $n=10$ )	8.2	5.1	1.8	3.0	12	21	85	68
>3 % ( $n=2$ )	15.3	9.9	2.0	3.1	17	25	80	65

*Act.* actual, *Est.* estimated

average, brand penetration is 38 % higher than estimated for new launches, but only 8 % higher for existing brands of equivalent share; purchase frequency is 71 % lower for new launches, but only 16 % lower for existing brands of equivalent share; while SCR is 91 % lower for new launches but only 40 % lower for existing brands of equivalent share. Hence, the higher penetration and lower purchase frequency found for the new launches is not a modeling artifact, but a real systematic difference that is present irrespective of the conditions tested.

## 4 Conclusion and implications

Our finding shows that given their market share, new launches attract more buyers who, in the first year, exhibit lower than expected loyalty. This empirical pattern distinguishes new launches from other small brands in the market, and generalizes across a wide range of conditions, including high- and low-category purchase frequency, premium brands, and private labels, for totally new brands, as well as variants. Importantly, these findings were consistent irrespective of the sales generated by the new launch. Therefore, these patterns are inherent characteristics of new launch, not drivers of success or failure.

This means that any new launch has a disproportionate amount of infrequent/light brand buyers, and that reaching out to this group is important for the brand to capitalize on past trial. The customer base of any small brand skews to heavy-category buyers, who naturally have larger repertoires (Ehrenberg 2000). Therefore, new launches need ongoing marketing activities to keep the brand as a salient part as a small part of a larger repertoire.

Ehrenberg and Goodhardt (2000) suggest that the first experience is like any other purchase; however, the experience of buying a new brand has two characteristics that might hamper future retrieval of the experience. First, it is a new experience, and so will be first encoded in episodic memory, which is highly prone to forgetting (Tulving 1972). Memory for the experience will only shift to semantic memory if consolidation occurs, which is how over time, new experiences become long-term memories (Dudai 2004). Consolidation is a two-stage process. The first involves the soon-after experience synaptic consolidation, and the second is systems consolidation, which takes longer, if it happens at all, and involves the reorganization of long-term memory, most probably via recurrent activation of the memory (Dudai 2004). Second, as pointed out by Ehrenberg and Goodhardt (2000), buyers of new brands are still likely to be experienced buyers of the category, and so the event of buying a new brand is unlikely to have the distinctiveness necessary to enhance encoding and speed up system consolidation processes (Tulving and Craik 2000). Therefore, this combination of a common behavior of buying from a category, but from a brand without strong contextual references in memory, could lead to weak memory traces for the experience that are quickly forgotten unless reinforced by marketing support in between repeat-purchase opportunities.

Initial empirical support for this view is available via exploratory analysis that compares the brand associations of new brand users with existing longer term users for existing brands. In a survey of 14 attributes pertaining to soft

drinks on a wide range of areas including *great on a warm day*; *global*, *wake you up* and *would taste great*; comparing customers who purchased the brand in the last 4 weeks (to control for usage); new users have a lower propensity to respond to brand attributes than existing users (average of 28 to 37 % across four brands, see Table 3). This suggests more weakly embedded brand associations for the new brand user cohort for existing brands. This weak embedding should be even more evident for new launches as they have many more new users.

Therefore, it appears that the important part of any new launch is to embed and strengthen the brand equity of light buyers to remind these buyers to repeat buy. This is supported by Singh et al (2012) for failed new launches, which lost penetration, rather than loyalty, over time—this is symptomatic of light buyers dropping off the customer base.

New launches are small brands, which mean that their buyers are typically heavy-category buyers with larger brand repertoires (Ehrenberg and Goodhardt 2000). Getting that first purchase is only the beginning of a constant battle for attention. This larger repertoire creates the condition of higher competition in buyers' memory for retrieval, and building the new launches' salience and knowledge will be challenging. These buyers naturally see more advertising for more brands in the product category (Harrison 2013; Romaniuk and Wight 2009), so the new launch needs to outperform competitor's advertising quality and scheduling—both within the introduction period and beyond.

This makes continued support for new launches after the introduction period to maintain and strengthen salience vital. Bursting media strategies with minimal post-launch support are therefore likely to be detrimental for new launch success, as this type of scheduling lacks the necessary post-purchase reinforcement. Instead, marketing activity distributed over a longer "launch" period, tailored to the rate of category buying may have a better chance of performing the dual role of consolidating the memories of past sales as well as attracting future sales from past buyers and new buyers.

This research has limitations of scope, and would benefit from replication in other countries and categories. Our focus was also on behavior, and therefore an avenue for future research is to examine the cognitive antecedents of these new buyers, and the impact the act of buying has on the equity of the new brand.

**Table 3** Comparison of brand association levels for 14 carbonated beverage attributes in the UK 2012

Attribute response levels	Example attribute: <i>would taste great</i>		Average 14 attributes	
	New user %	Existing user %	New user %	Existing user %
Fanta ( $n=299$ )	38	70	29	38
Coke Zero ( $n=179$ )	39	53	19	36
Powerade ( $n=112$ )	28	36	27	32
Red Bull ( $n=201$ )	32	36	35	41
Average	34	49	28	37

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## Appendix 1

**Table 4** Full data results

Case number	Penetration		Purchase frequency		Share of category		% 1–2 times buyers	
	Act.	Est.	Act.	Est.	Act.	Est.	Act.	Est.
1	2.5	1.9	1.3	1.6	23	29	92	86
2	5.6	4.3	1.6	2.1	18	27	96	77
3	14.4	12.1	3.0	3.5	7	10	73	65
4	0.53	0.46	3.8	4.5	2	9	65	68
5	2.7	2.3	1.3	1.6	19	29	86	86
6	3.9	2.2	1.8	3.3	4	9	84	68
7	6.0	2.6	2.1	4.7	4	10	77	66
8	1.6	1.3	1.7	2.0	23	26	86	77
9	1.2	1.0	1.6	2.0	20	26	85	77
10	0.29	0.16	1.1	2.0	13	26	98	78
11	2.8	1.1	1.3	3.3	3	9	95	68
12	2.3	1.5	2.1	3.3	4	9	81	68
13	1.5	1.1	3.3	4.5	2	9	68	68
14	0.55	0.32	2.6	4.5	1	9	79	68
15	0.57	0.45	1.2	1.6	18	28	97	87
16	0.52	0.39	1.2	1.6	14	28	98	87
17	5.4	3.4	1.8	2.9	13	25	82	66
18	5.1	2.9	1.7	2.9	14	25	86	66
19	2.1	1.0	1.4	2.9	11	24	92	67
20	0.6	0.3	1.2	2.9	9	24	95	67
21	0.6	0.2	1.3	2.9	15	20	96	65
22	0.8	0.4	1.7	2.9	12	20	86	65
23	8.2	4.4	1.6	3.0	9	20	88	64
24	17.1	9.9	1.8	3.1	13	21	81	63
25	13.1	6.2	1.9	4.1	9	18	82	55
26	2.4	0.9	1.6	4.0	7	18	89	56
27	2.0	0.9	1.8	4.0	10	18	84	56
28	1.9	0.8	1.7	4.0	6	18	86	56
29	19.2	10.8	2.1	3.8	16	28	76	57
30	2.4	1.0	1.5	3.6	7	26	89	59
31	0.8	0.3	1.5	3.6	8	26	93	59
32	0.6	0.2	1.4	3.6	6	26	92	59



**Table 4** (continued)

Case number	Penetration		Purchase frequency		Share of category		% 1–2 times buyers	
	Act.	Est.	Act.	Est.	Act.	Est.	Act.	Est.
33	11.3	8.9	1.9	2.4	17	22	83	73
34	1.7	1.1	1.4	2.2	9	20	96	76
35	0.7	0.4	1.3	2.2	10	20	91	76
36	0.6	0.4	1.5	2.2	11	20	94	76
37	4.0	3.2	1.6	2.0	15	27	89	79
38	3.4	2.2	1.3	2.0	17	26	94	79
39	2.6	1.7	1.3	2.0	13	26	93	79
40	1.8	1.2	1.3	1.9	12	26	93	79
Average	3.9	2.4	1.7	2.9	11	21	87	70

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