

# Ehrenberg-Bass Institute Working Paper

Forthcoming in the *International Journal of Market Research*

---

“Exploring the past behaviour of new brand buyers”

## Authors:

Dr Arry Tanusondjaja - Ehrenberg-Bass Institute

Dr Giang Trinh - Ehrenberg-Bass Institute

Prof. Jenni Romaniuk - Ehrenberg-Bass Institute



## Exploring the past behaviour of new brand buyers

### Abstract

New brand launches are risky endeavours for marketers, as many fail to attract a sustainable customer base. This research examines the retrospective buying behaviour of customers acquired by a new brand, both at category and brand level. We examine new brand launches in six packaged goods categories in the UK, across a wide range of brand and category conditions, including premium brands and private labels. The results show that in the pre-launch period, buyers of a new brand are more likely to have been heavier (more frequent) category buyers and, where applicable, heavier buyers of a parent brand. However, despite disproportionately drawing from heavy category buyers, the buyers of new launches tend to only become light brand buyers. This suggests that new brands are more likely to ‘slip’ into the repertoire of heavy category or parent brand buyers. This research contributes to our understanding of repertoire formation in packaged goods categories. It also has implications for the pre-testing of new launches and the scheduling of marketing activities.

*Key words: New brand launches; repertoire formation; cannibalisation; category buying; brand portfolio; packaged goods*

## **Introduction**

In mature consumer packaged goods' categories, one popular tactic for brands to increase their revenue is to introduce a new brand or variant (co-branded new entrant) to their portfolio. A new introduction can serve multiple purposes including: appealing to variety seeking behaviour so buyers can buy different brands from the same company within their repertoire (Mason & Milne, 1994); guarding valuable shelf-space in stores, as retail stores prefer brands with greater variety to increase foot traffic (Bergen, Dutta, & Shugan, 1996; Hubner & Kuhn, 2012; Sorensen, 2009); and/or to appeal to a new segment of customers, and acquire them as part of the company's portfolio (Kapferer, 2012).

In an early exploratory study that investigated early product users, Taylor (1977) found that in the 12-month period after launch, buyers of a new product tended to be heavy buyers of the broader category in the post-launch period. The study also details the considerable implications for pre-testing, product development and marketing planning. While the Taylor (1977) study is sparse in detail on the nature of those launches and the degree to which of the launches are for new brands, new variants or completely new products, it does, however, provide a valuable stimulus to examine new brand launches under a set of more specific conditions. In addition, Taylor (1977) has not looked at the cohort of buyers of the category in the pre-launch period (e.g. 12-months before launch). The instability of heavy category buyers year-on-year (Romaniuk & Wight, 2015) makes this an important consideration to ensure there is correct understanding of the pool from which new launches draw their customer base. This information is also more useful for brand managers, who, if aware of the characteristics of the buyers of the new product before it is

introduced, can better tailor marketing activities to attract more new buyers. We also extend the Taylor (1977) study to examine the parent brand buying characteristics of the buyers of the new products, which is an important aspect when considering potential cannibalisation.

Cannibalisation has been typically examined using the duplication of purchases method (Ehrenberg, Uncles, & Goodhardt, 2004), which shows excess sharing between the new product's buyers and the parent brand's buyers (Lomax et al. 1996; Dawes 2016). However, whether or not the light or heavy buyers of the parent brand cause this excess sharing is not known.

We therefore set out to explore the brand and category buying behaviour of the cohort of buyers of a new brand before the new brand launch. We used Kantar Worldwide's UK Household Panel data to investigate twenty-four launches – which represent a range of conditions including new brands, new variants, premium and discount brands, infrequently and frequently bought categories, levels of sales generated. We identify when each launch occurred, and use this as a pivot point for extracting brand and category buying behaviour backwards (pre-launch).

Specifically, we seek to identify if the cohort of new launch buyers tend to skew to heavy category and/or brand buyers, and in the case of new variants, if this skew is particularly evident for the parent brand.

## **Background**

Establishing a new brand in the market is both risky and costly, as launches continue to have a high rate of failure (Castellion & Markham, 2013; Crawford, 1977; IRI, 2015). To mitigate this risk, manufacturers can choose to launch a variant, which is an extension of an existing brand's offering (Ambler & Styles, 1996; Hultink, Hart, Robben, & Griffin, 2000). This strategy relies on the equity of the core brand to facilitate the consumers' acceptance of the new variant. The

launch of variants can have additional long term effects, as the provision of a wider product line under a single name can assist in further building brand equity (Lehmann & Winer, 2005; Völckner & Sattler, 2006). Furthermore, with differing tastes and preferences, variants appeal to different overlapping buyer segments, thus linking greater variants to increased number of buyers (Trinh, Dawes, & Lockshin, 2009). To illustrate the popularity of variants, of the products introduced in 2012 that survived their first year, 82% of food and beverage brands and 91% of non-food brands were variants (IRI, 2013).

However, while a variant strategy might lower entry risk, variants attract other risks. The first is the risk of cannibalisation: where the sales of the new variant are made at the expense of sibling variants or the parent brand, rather than the competitors (Dawes, 2016; Lomax & McWilliam, 2001; Reddy, Holak, & Bhat, 1994; Speed, 1998). The end result can be detrimental to total portfolio profitability, especially if there are negligible additional sales and/or if the new variant does not introduce new buyers to the brand portfolio. Second, there is the risk of negative equity effects associated with new product failures, such as Coca-Cola's New Coke introduction in 1985 or the failure of Zune digital media player for Microsoft in 2012. Third, is the risk of the new brand or variant not perceived as being fully aligned to the equity of the parent brand (Loken & Roedder John, 1993; Pina, Iversen, & Martinez, 2010; Sharp, 1993) such as Harley Davidson's entry into the fragrance market. This risk to the parent brand makes it important to successfully launch a new variant, and understand who is buying new launches.

#### *The special case of heavy category buyers*

A long-standing empirical finding is that the frequency of buying a category follows a Negative Binomial Distribution (NBD) (Ehrenberg, 1959). Therefore while the actual number of purchases

depends on the category purchase penetration and frequency in the time period, the frequency of this distribution, or how many buyers buy once, twice, three times and so forth, follows a predictable distribution with a predictable ratio between more and less frequent category buyers (Ehrenberg et al., 2004; Schmittlein, Bemmaor, & Morrison, 1985; Uncles, Ehrenberg, & Hammond, 1995; Uncles, Wang, & Kwok, 2010).

Heavy category buyers, in line with their classification, buy the category more frequently than other buyers. There is a correlation between category purchase frequency and category repertoire size (Banelis, Rungie, Riebe, & Meyer-Waarden, 2005; Ehrenberg, 2000), which means households that buy the category more frequently also typically buy from a wider range of brands. This makes heavy buyers more attractive to new launches for two reasons: a higher frequency of purchase, which makes them more likely to be buying from the category when the new brand is launched, and therefore more receptive to notice and act upon the new launch marketing; and a wider repertoire which makes it easier to add or substitute a new brand to the current portfolio of brands. This leads to the first hypothesis:

H1: The pre-launch category frequency distribution of new launch buyers will have a higher proportion of heavy category buyers than the normal category frequency distribution.

### *Brand extensions and cannibalisation*

Although the logical aim for new brand launches is to capture a bigger share of sales from the competitors and to attract new buyers, such launches may also impact the parent or sibling brand through cannibalisation. A study by Lomax and McWilliam (2001) reports that on average, around half (53%) of the volume produced by the new product is derived from the parent brand. Cannibalisation is not necessarily detrimental to the brand, and indeed under the duplication of

purchase law a level of cannibalisation – correlated with the parent brand size – is to be expected (Lomax, Hammond, East, & Clemente, 1997). Provided the overall share of the brand portfolio increases sufficiently to justify the additional costs associated with the introduction of the new product, cannibalisation should not be of great concern to the parent brand.

An important consideration is the type of buyer who is cannibalised. Given the importance of heavy brand buyers to a brand's sales, if the new variant attracts a disproportionate amount of heavy parent brand buyers, this may weaken the long-term link of these buyers to the parent brand. This risk is exacerbated by the tendency for the marketing of new variants to leverage off the equity of the parent brand. Therefore, as buyers of the parent brand are more likely to notice the marketing of the new launch, and heavy buyers of the parent brand also buy the category relatively frequently (to qualify to be a heavy parent brand buyer), they are likely to be in the market to buy the category when the new variant is launched. This leads to the question of whether new launches attract a disproportionate amount of heavy buyers of the parent brand, or if the variant draws from all types of brand buyers in line with NBD expectations. This leads to the following hypotheses:

H2a: The pre-launch brand frequency distribution of the parent/sibling brand of new launch buyers will contain a higher proportion of heavy brand buyers than the normal brand frequency distribution.

H2b: The new brand launch's skew to prior heavy brand buyers will be greater from parent/sibling brands than from non-parent/sibling brands.

## Research method

### *Description of the data*

From Kantar Worldwide panel data from the UK for the period of 2006 – 2014, we identified twenty-four launches (see Table 1). These launches covered six product categories of higher and lower category purchase frequency rates. The new launch brands include variants and completely new brands, national brands and private labels, as well as low, standard and premium price options. This gave us scope to investigate a wide number of circumstances, but with replications to determine systematic versus one-off deviations.

[Insert Table 1 about here]

### *Approach*

We draw on the bivariate NBD to provide the benchmarks for hypothesis testing. The bivariate NBD models consumer purchases of two brands (or category and brand). That is, how different buyer subclasses (buying 0, 1, 2 times....) of brand A purchase a competitor brand, brand B (Goodhardt & Ehrenberg, 1967). This approach enables us to model two brands in either the same or different periods and therefore estimates the expected number of buyers of brand A subclasses that will buy brand B under normal conditions. We can then compare this normal baseline with the special case of the launch of a new brand. For example, if the normal buying rate for the buyers of brand A who buy brand B is 4.2, and the buying rate when brand B is a new brand (referred to as (new) brand B) is 6.8, then the buyers of brand A who buy (new) brand B are more likely to be heavier than the baseline estimates. The model is an extension of the well-known and widely empirically verified univariate NBD model, which has been shown to be



effective in benchmarking consumer buying behaviour (e.g. Ehrenberg, 1988; Fader & Hardie, 2002; Morrison & Schmittlein, 1988; Schmittlein et al., 1985). The advantage of this approach is that the use of the bivariate NBD model can simultaneously benchmark new brand buying behaviour and category or parent brand purchasing behaviour.

## Results

To test H1, we compare the actual category purchase frequency of the new brand buyers prior to the new brand launch against the bivariate NBD model estimates. The results (Table 2) consistently show the observed category purchase frequency of those who buy the new launch is on average 56% higher than the expected benchmarks (actual panel average of 23.3 versus bivariate NBD estimates averaging 14.9, all cases statistically significantly different at  $p < 0.05$ ). An example of this pattern can be seen from Figure 1, the observed category purchase frequency of the new brand buyers is markedly higher than the estimated frequency by the bivariate NBD model. This suggests that the cohort buying new launches draws disproportionately from heavy category buyers across all the different types of new launches tested. We also compare the category purchase frequency of once only buyers and repeated buyers of the new launch. The results show that repeated buyers have higher category purchase frequency than once only buyers (26.8 vs. 21.8 on average). Both groups still have higher category purchase frequency than the average estimate of 14.9.

[Insert Figure 1 about here]

[Insert Table 2 about here]

To test H2a, we compared the prior frequency of buying the parent brand for each relevant brand, with the bivariate NBD estimates (Table 3). 22 of the 24 cases fit the variant criterion, with the two completely new launch cases excluded from this analysis. The results (Table 3) show the observed parent brand purchase frequency of those who buy the new variant is higher than the expected benchmark (average 5.8 versus 2.7, 20 out of 22 cases statistically significant different at  $p < 0.05$ ). New launch buyers are more likely to have previously been heavy buyers of the launches' parent brand, which supports H2a. As can be seen from Figure 2, compared to the normal NBD distribution, a new variant tends to attract a greater number of heavy parent brand buyers. We also compare the parent brand purchase frequency of once only buyers and repeated buyers of the new launch. We find that repeated buyers have higher parent brand purchase frequency than once only buyers (6.8 vs. 5.2 on average). They are both higher than the average parent brand purchase frequency estimate.

[Insert Table 3 about here]

[Insert Figure 2 about here]

To test H2b, we compared the purchase frequency of the parent brands against the average purchase frequency of the top four non-parent brands – of those who buy the new variant (Table 4). These results show that the new variants tend to attract greater heavy parent brand buyers, rather than heavy non-parent brand buyers (5.8 versus 4.3, on average), which support H2b. There are two exceptions, in cases 11 and 13, where the new variants attract a greater number of heavy non-parent brand buyers than heavy parent brand buyers. The reason for these exceptions might be that the parent brands of the new variants are smaller market share brands with a smaller pool of heavy buyers to attract.

[Insert Table 4 about here]

## **Conclusion and implications**

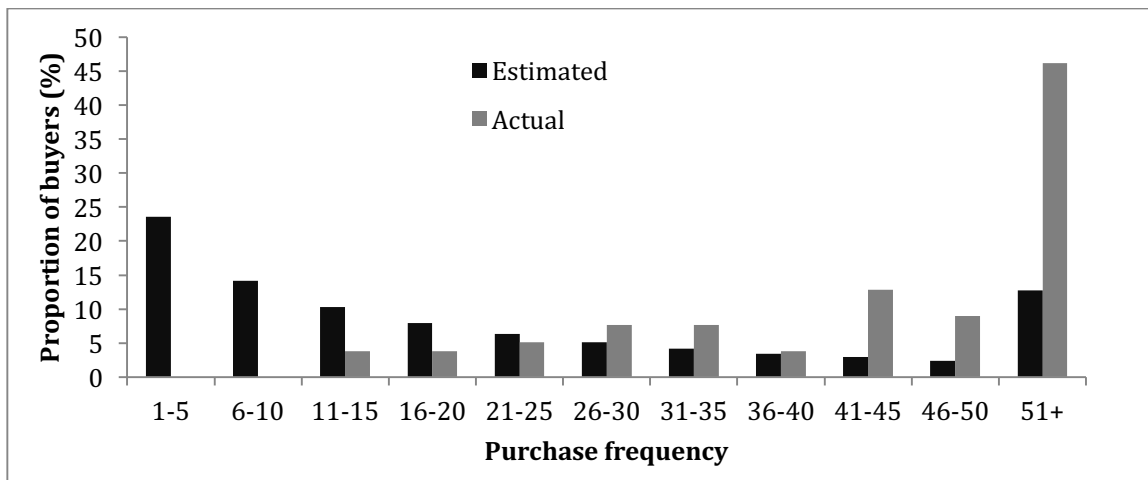
Our first finding is that buyers of new launches were more likely to come from heavy category buyers. This result substantially extends the findings of Taylor's (1977) work into new product launches nearly 40 years later, with an advance in method, as well as more extensive generalization across a range of different conditions, including: today's market conditions, brands in high and low category purchase frequency; premium brands; private label brands; new launches; as well as variants; and for more and less successful new launches, in terms of their market share achieved. In a specialised market, such as medicines, Stern and Wright (2016) also report similar findings where doctors adopting new drugs also on average, have higher rate of category prescription compared to the non-innovators. These findings mean that the acceptability of new launches to heavy category buyers is crucial to meet initial sales targets, and therefore should be, as suggested by Taylor (1977), a key component of new launch testing. However, the initial acceptability of heavy category buyers is not a necessary condition for new launch success, as success depends on the total number of sales, not just the sales from heavy category buyers.

When undertaking a new launch, brand managers should also consider the characteristics of heavy category buyers when designing marketing plans. For example, heavy category buyers have larger brand repertoires and will naturally see more advertising for competitors (Harrison, 2013; Romaniuk & Wight, 2009), so the new launch needs to outperform competitor advertising (in both quality and scheduling). It is also vital to have excellent branding execution as it will be easy to misattribute advertising to another brand or to no brand at all, but simply encourage category purchasing which will favour larger share brands (Franzen & Bouman, 2001Franzen &

**Table 1 – Description of New Launches**

<p>Case 1: Personal Care Category 1 CPF = 4.0 Target Brand: Variant of a national brand Pricing: Average Market share one year after launch: 0.9%</p>	<p>Case 2: Personal Care Category 2 CPF = 5.5 Target Brand: Variant of a national brand Pricing: Premium Market share one year after launch: 1.8%</p>
<p>Case 3: Food and Beverages Category 1 CPF = 37.8 Target Brand: Variant of a national brand Pricing: Average Market share one year after launch: 2.1%</p>	<p>Case 4: Food and Beverages Category 2 CPF = 27.0 Target Brand: New national brand Pricing: Premium Market share one year after launch: 0.2%</p>
<p>Case 5: Personal Care Category 1 CPF = 4.0 Target Brand: Variant of a national brand Pricing: Average Market share one year after launch: 1.0%</p>	<p>Case 6: Food and Beverages Category 1 CPF = 37.8 Target Brand: Variant of a national brand Pricing: Average Market share one year after launch: 0.4%</p>
<p>Case 7: Food and Beverages Category 2 CPF = 27.0 Target Brand: Variant of a national brand Pricing: Average Market share one year after launch: 1.3%</p>	<p>Case 8: Personal Care Category 2 CPF = 5.5 Target Brand: New national brand Pricing: Premium Market share one year after launch: 0.5%</p>
<p>Case 9: Personal Care Category 2 CPF = 5.5 Target Brand: Variant of a national brand Pricing: Low Market share one year after launch: 0.4%</p>	<p>Case 10: Personal Care Category 2 CPF = 5.5 Target Brand: Variant of a private label Pricing: Average Market share one year after launch: 0.1%</p>
<p>Case 11: Food and Beverages Category 1 CPF = 37.8 Target Brand: Variant of a national brand Pricing: Low Market share one year after launch: 0.2%</p>	<p>Case 12: Food and Beverages Category 1 CPF = 37.8 Target Brand: Variant of a private label Pricing: Average Market share one year after launch: 0.2%</p>
<p>Case 13: Food and Beverages Category 2 CPF = 27.0 Target Brand: Variant of a private label Pricing: Average Market share one year after launch: 0.6%</p>	<p>Case 14: Food and Beverages Category 2 CPF = 27.0 Target Brand: Variant of a private label Pricing: Low Market share one year after launch: 0.2%</p>
<p>Case 15: Personal Care Category 1 CPF = 4.0 Target Brand: Variant of a national brand Pricing: Premium Market share one year after launch: 0.2%</p>	<p>Case 16: Personal Care Category 1 CPF = 4.0 Target Brand: Variant of a private label Pricing: Low Market share one year after launch: 0.2%</p>
<p>Case 17: Food and Beverages Category 3 CPF: 15.4 Target Brand: Variant of a national brand Price: Average Market share one year after launch: 1.2%</p>	<p>Case 18: Food and Beverages Category 3 CPF: 15.4 Target Brand: Variant of a national brand Price: Average Market share one year after launch: 0.4%</p>
<p>Case 19: Food and Beverages Category 3 CPF: 15.4 Target Brand: Variant of a private label Price: Premium Market share one year after launch: 0.2%</p>	<p>Case 20: Food and Beverages Category 3 CPF: 15.4 Target Brand: Variant of a national brand Price: Low Market share one year after launch: 0.05%</p>
<p>Case 21: Personal Care Category 3 CPF = 6.8 Target Brand: Variant of a national brand Pricing: Average Market share one year after launch: 0.6%</p>	<p>Case 22: Personal Care Category 3 CPF = 6.8 Target Brand: Variant of a national brand Pricing: Premium Market share one year after launch: 0.2%</p>
<p>Case 23: Personal Care Category 3 CPF = 6.8 Target Brand: Variant of a national brand Pricing: Premium Market share one year after launch: 0.2%</p>	<p>Case 24: Personal Care Category 3 CPF = 6.8 Target Brand: Variant of a private label Pricing: Low Market share one year after launch: 0.1%</p>

**Figure 1 – Actual and Estimated Category Purchase Distributions of New Launch Buyers (Case 4)**



**Table 2 – Comparison of Actual vs. Estimated Category Purchase Frequencies of New Launch Buyers**

New launch	Category purchase frequencies	
	Actual from HH panel data	Estimated from BV-NBD
Case 1	5.9	4.1*
Case 2	6.9	5.2*
Case 3	49.9	31.2*
Case 4	53.4	24.8*
Case 5	6.0	4.3*
Case 6	49.9	37.3*
Case 7	42.5	19.4*
Case 8	6.3	5.4*
Case 9	6.7	5.3*
Case 10	6.2	5.3*
Case 11	48.4	37.9*
Case 12	43.2	37.5*
Case 13	48.4	22.9*
Case 14	36.9	24.1*
Case 15	4.8	3.9*
Case 16	7.0	4.4*
Case 17	26.7	13.3*
Case 18	24.3	14.5*
Case 19	22.1	14.4*
Case 20	27.3	14.9*
Case 21	8.8	6.8*
Case 22	9.0	6.7*
Case 23	9.8	6.9*
Case 24	8.7	6.8*
<b>Average</b>	23.3	14.9

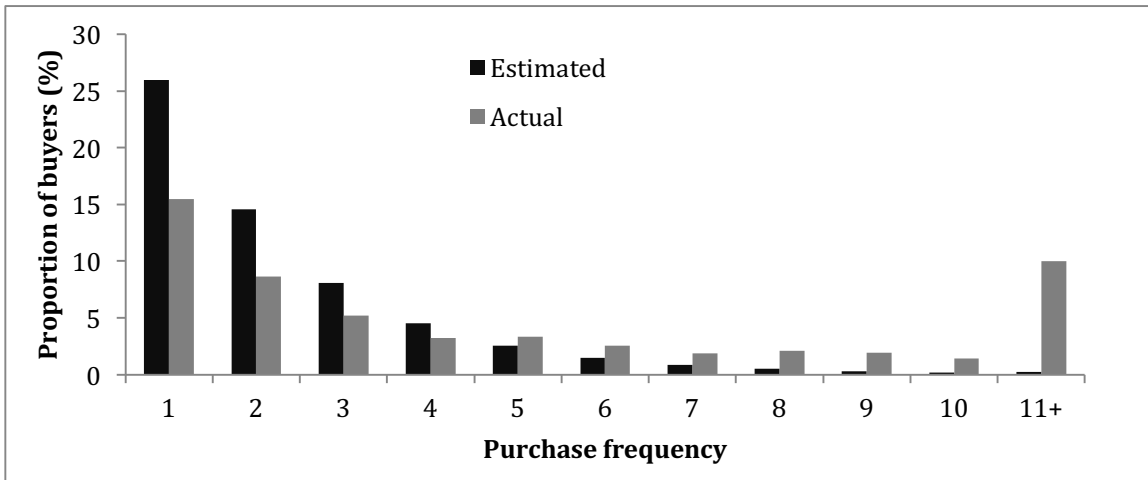
\*p<0.05, Chi squared test of significance

**Table 3 – Comparison of Actual vs. Estimated Parent Brand Purchase Frequencies of New Launch Buyers**

New launch	Parent brand purchase frequencies	
	Actual from HH panel data	Estimated from BV-NBD
Case 1	2.4	1.8*
Case 2	4.2	2.8*
Case 3	7.1	2.3*
Case 4	NA	NA
Case 5	2.4	1.6*
Case 6	5.2	2.8*
Case 7	15.8	5.7*
Case 8	NA	NA
Case 9	2.7	1.9*
Case 10	3.0	1.8
Case 11	4.2	2.2*
Case 12	5.9	3.3*
Case 13	8.5	3.0*
Case 14	15.7	6.0*
Case 15	2.8	2.0
Case 16	3.0	1.9*
Case 17	6.9	2.8*
Case 18	8.1	3.6*
Case 19	6.9	2.6*
Case 20	6.3	2.2*
Case 21	4.2	2.5*
Case 22	4.9	2.7*
Case 23	4.1	2.6*
Case 24	3.9	2.0*
<b>Average</b>	5.8	2.7

\*p<0.05, Chi squared test of significance; Note: cases 4 and 8 did not have a parent or sibling brand

**Figure 2 – Actual and Estimated Parent Brand Purchase Frequency Distributions of New Launch Buyers (Case 3)**





**Table 4 – Comparison of Actual Parent Brand Purchase Frequencies vs. Non-Parent Brands of New Launch**

**Buyers**

New launch	Parent brand purchase frequencies	Average non-parent brands purchase frequencies
	Actual from HH panel data	Actual from HH panel data
Case 1	2.4	1.8*
Case 2	4.2	2.4*
Case 3	7.1	5.3*
Case 4	NA	N/A
Case 5	2.4	1.8*
Case 6	5.2	4.8*
Case 7	15.8	8.7*
Case 8	NA	N/A
Case 9	2.7	2.4
Case 10	3.0	2.1
Case 11	4.2	4.4
Case 12	5.9	4.5*
Case 13	8.5	10.9*
Case 14	15.7	7.9*
Case 15	2.8	2.1*
Case 16	3.0	1.9*
Case 17	6.9	5.8*
Case 18	8.1	5.9*
Case 19	6.9	5.5*
Case 20	6.3	6.1
Case 21	4.2	2.5*
Case 22	4.9	2.7*
Case 23	4.1	2.8*
Case 24	3.9	2.8
<b>Average</b>	5.8	4.3

\*p<0.05, Chi squared test of significance; Note: cases 4 and 8 did not have a parent or sibling brand

Bouman, 2001; Romaniuk, 2009).

Our second finding is that buyers of new launches are more likely to be heavy parent brand buyers who become light new variant buyers. Such buyers are more likely to continue purchasing the parent brand, and their usual variants – and selecting the new variant at a much lower purchase frequency. Rather than a ‘road to Damascus’ conversion from the parent brand to the new launches, new launches appear to ‘sneak’ into the repertoire of consumers. This shows that the new variant causes purchase displacement from the parent brand that will only be evident in loyalty metrics, and not penetration figures – as it is more likely to be heavy buyers switching one purchase. This suggests the duplication of purchase approach (Lomax et al. 1996; Dawes 2016) is unlikely to pick up the change in purchase patterns. Changes in purchase frequency for parent brands will be a more appropriate way to examine the underlying changes in parent brand purchasing due to cannibalisation as penetration and purchase weight of each buyer class is taken into account. The long-term effect of this erosion in purchase frequency to the parent brand is an important area of future research.

Importantly, these findings occur irrespective of the sales generated by the new launch, that is whether it is more or less successful in generating sales. Therefore, these patterns are inherent characteristics of new launch customer bases rather than drivers of success or failure. The determinant of success or failure is the number of customers a launch attracts, rather than success being due to attracting a disproportionate amount of customers to become heavy brand buyers. Therefore, marketing plans for new launches should aim to attract more of all types of customers and not specifically target heavy category buyers at the expense of lighter category. Therefore, it is vital to continue the support for new launches after the introduction period to also attract light category buyers that did not buy the category at the time of launch but come into the market

three, six or even nine months afterwards. Bursting media strategies with minimal post-launch support are likely to be detrimental for new launch success, as this type of scheduling will not reach other category buyers, nor remind heavy category buyers to repurchase (Trinh *et al.* 2015). Instead, marketing activity distributed over a longer launch period may have a better chance of attracting ongoing sales.

## Acknowledgements

We would like to thank Kantar for making the data available. All analyses in this paper based on Kantar data are by the authors and not Kantar.

## References

- Ambler, T., & Styles, C. (1996). Brand development versus new product development: towards a process model of extension decisions. *Marketing Intelligence & Planning*, 14(7), 10-19.
- Banelis, M., Rungie, C., Riebe, E., & Meyer-Waarden, L. (2005). Do higher spending households buy a greater variety of brands?: An application of repertoire regression. *Marketing Bulletin*, 16.
- Bergen, M., Dutta, S., & Shugan, S. M. (1996). Branded variants: A retail perspective. *Journal of Marketing Research*, 33(1), 9-19.
- Castellion, G., & Markham, S. K. (2013). Perspective: New product failure rates: Influence of argumentum ad populum and self-interest. *Journal of Product Innovation Management*, 30(5), 976-979.
- Crawford, C. M. (1977). Marketing research and the new product failure rate. *The Journal of Marketing*, 41(2), 51-61.

Dawes, J. G. (2016). Testing the robustness of brand partitions identified from purchase duplication analysis. *Journal of Marketing Management*, 1-21.

Ehrenberg, A. (1959). The Pattern of Consumer Purchases. *Applied Statistics*, 8(1), 26-41.

Ehrenberg, A. (1988). *Repeat-buying: Facts, theory and applications*. London: Oxford University Press.

Ehrenberg, A. (2000). Repeat-Buying: facts, theory and applications. *Journal of Empirical Generalisations in Marketing Science*, 5, 392-770.

Ehrenberg, A., Uncles, M. D., & Goodhardt, G. G. (2004). Understanding brand performance measures: Using Dirichlet benchmarks. *Journal of Business Research*, 57(12), 1307-1325.

Fader, P. S., & Hardie, B. G. S. (2002). A note on an integrated model of customer buying behavior. *European Journal of Operational Research*, 139(3), 682-687.

Franzen, G., & Bouman, M. (2001). *The Mental World of Brands - Mind, Memory and Brand Success*. Great Britain: World Advertising Research Centre.

Goodhardt, G., & Ehrenberg, A. (1967). Conditional trend analysis: A breakdown by initial purchasing level. *Journal of Marketing Research*, 4(May), 155-161.

Harrison, F. (2013). Digging Deeper Down into the Empirical Generalization of Brand Recall. *Journal of Advertising Research*, 53(1), 181-185.

Hubner, A., & Kuhn, H. (2012). Retail category management: State-of-the-art review of quantitative research and software applications in assortment and shelf space management. *Omega*, 40, 199-209.

Hultink, E. J., Hart, S., Robben, H. S. J., & Griffin, A. (2000). Launch decisions and new product success: An empirical comparison of consumer and industrial products. *Journal of Product Innovation Management*, 17(1), 5-23.

IRI. (2013). *Pacesetters 100: The Fuel to Accelerate Growth*. Retrieved from online:

IRI. (2015). *New product pacesetters: Key cobblestones along the path to growth*. Retrieved from Online:

Kapferer, J.-N. (2012). *The New Strategic Brand Management: Advanced Insights and Strategic Thinking* (5 ed.). UK: Kogan Page.

Lehmann, D. R., & Winer, R. S. (2005). *Product management, 4th ed* (4th edition ed.). New York: Mc-Graw Hill.

Loken, B., & Roedder John, D. (1993). Diluting brand beliefs: when do brand extensions have a negative impact. *Journal of Marketing*, 57(July), 71-84.

Lomax, W., Hammond, K., East, R., & Clemente, M. (1997). The measurement of cannibalization. *Journal of Product & Brand Management*, 6(1), 27-39.

Lomax, W., & McWilliam, G. (2001). Consumer Response to Line Extensions: Trial and Cannibalisation Effects. *Journal of Marketing Management*, 17, 391-406.

Mason, C. H., & Milne, G. R. (1994). An Approach for Identifying Cannibalization within Product Line Extensions and Multi-Brand Strategies. *Journal of Business Research*, 31, 163-170.

Morrison, D. G., & Schmittlein, D. C. (1988). Generalizing the NBD model for customer purchases: What are the implications and is it worth the effort? *Journal of Business & Economic Statistics*, 6(2), 145-159.

Pina, J. M., Iversen, N. M., & Martinez, E. (2010). Feedback effects of brand extensions on the brand image of global brands: A comparison between Spain and Norway. *Journal of Marketing Management*, 26(9/10), 943-966.

Reddy, S. K., Holak, S. L., & Bhat, S. (1994). To Extend or Not to Extend: Success Determinants of Line Extensions. *Journal of Marketing Research*, 31(May), 243-252.

Romaniuk, J. (2009). The efficacy of brand-execution tactics in TV advertising, brand placements and Internet advertising. *Journal of Advertising Research*, 49(2), 143-150.

Romaniuk, J., & Wight, S. (2009). The influence of brand usage on responses to advertising awareness measures. *International Journal of Market Research*, 51(2), 203-218.

Romaniuk, J., & Wight, S. (2015). The stability and sales contribution of heavy buying households. *Journal of Consumer Behaviour*, 14(1), 13-20. doi:10.1002/cb.1490

Schmittlein, D. C., Bemmaor, A. C., & Morrison, D. G. (1985). Why Does the NBD Model Work? Robustness in Representing Product Purchases, Brand Purchases and Imperfectly Recorded Purchases. *Marketing Science*, 4(No. 3, Summer), 255-266.

Sharp, B. (1993). Managing Brand Extension. *Journal of Consumer Marketing*, 10(3), 11-17.

Sorensen, H. (2009). *Inside the mind of the shopper* (Vol. 1). Upper Saddle River, New Jersey: Pearson Education Inc.

Speed, R. (1998). Choosing Between Line Extensions and Second Brands: The Case of the Australian and New Zealand Wine Industries. *Journal of Product & Brand Management*, 7(NO. 6), 519-536.

Stern, P. and Wright, M. (2016) The Adoption of New Prescription Drugs Is Strongly Associated with Prior Category Prescribing Rate. *International Journal of Research in Marketing*, 33, 1, pp.220-24.

Taylor, J. W. (1977). A Striking Characteristic of Innovators. *Journal of Marketing Research*, 14(February), 104-107.

Trinh, G., Dawes, J., & Lockshin, L. (2009). Do product variants appeal to different segments of buyers within a category? *Journal of Product & Brand Management*, 18(2), 95-105.

Trinh, G., Romaniuk, J., and Tanusondjaja, A. (2015) Benchmarking Buyer Behavior Towards New Brands. *Marketing Letters*, pp.1-10.

Uncles, M. D., Ehrenberg, A., & Hammond, K. (1995). Patterns of buyer behavior: Regularities, models, and extensions. *Marketing Science*, 14(3), G61-G70.

Uncles, M. D., Wang, C., & Kwok, S. (2010). A temporal analysis of behavioural brand loyalty among urban Chinese consumers. *Journal of Marketing Management*, 26(9/10), 921-942.

Völckner, F., & Sattler, H. (2006). Drivers of brand extension success. *Journal of Marketing*, 70(2), 18-34.

Wilkinson, J. W., Trinh, G., Lee, R., & Brown, N. (2015). Can the negative binomial distribution predict industrial purchases? *Journal of Business and Industrial Marketing*.