

Sales effectiveness of supermarket endcaps: Does location matter?

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Abstract

Previous research has shown that endcaps – special displays located at either end of the gondola rows in a supermarket – are effective at increasing sales level (Chevalier, 1975; Nakamura et al., 2014; Wilkinson, Mason, & Paksoy, 1982). They have claimed that endcaps were able to increase sales levels from 23% to an overwhelming 1,197%. Shoppers' paths could be considered responsible for this sales uplift. Shoppers generally navigate through the store in a predictable manner: (1) in a racetrack pattern, meaning that shoppers traverse around the perimeter of the store, or (2) in a U-turn pattern, meaning that shoppers navigate through the store in a U-shaped pattern (Larson, Bradlow, & Fader, 2005; Sorensen, 2010). Therefore, placing products at multiple locations within high traffic areas – such as in-aisle and on endcap displays – could increase shoppers' likelihood of encountering, noticing and purchasing items. As shoppers travel through different locations of the store, this could also lead to different sales uplift throughout different areas of the store.

Only a handful of studies have directly examined the effectiveness of endcaps in relation to sales uplift (Buttle, 1993; Chevalier, 1975; Kennedy, 1970, Wilkinson et al., 1982). None of these studies have attempted to understand how different locations of endcaps affect sales uplift. They have not isolated and identified whether the sales uplifts were generated from the endcap shelf or from the in-aisle shelf, or a combination of the two. These findings offer important insights into how endcap promotions affect shopper behaviour, expanding researchers' and practitioners' knowledge of the effectiveness of such an important marketing tool. Therefore, this thesis will answer the following the main research questions:

RQ1: How does the sales uplift differ for endcaps located at the front vs. at the rear of the store?

RQ2: How does the sales uplift differ for endcaps located near vs. middle vs. far away from the store main entrance?

RQ3: How does sales uplift differ for endcaps located on the (parent) category aisle vs. off it?

RQ4: How do sales uplifts across the locations in RQ1-RQ3 differ between product categories?

RQ5: What is the sales composition of endcap vs. in-aisle?

This thesis uses transactional data and the corresponding records of which items were on each endcap from a suburban Australian supermarket. Two studies were conducted: Study 1 was a natural experiment that analysed 38 product categories across five weeks of transactional data, while Study 2 was a quasi-experiment that analysed four brand-based case studies across three different product categories. The endcaps' sales uplift was calculated by two different methods: (1) percentage change in the quantity sold, and (2) price elasticity.

The results from Study 1 revealed that when promotional items were placed on endcaps, they generated a higher sales' uplift (on average, a 313% increase in units sold) compared to when they were just price-promoted in-aisle only. Study 2 results showed that rear endcaps generated a higher sales uplift than front endcaps (on average, 416% vs. 346%). When looking at the sales composition of endcap vs. in-aisle, front endcaps contributed a higher percentage of the endcap-only sales than rear endcaps (on average, 34% vs. 24%). These results make the following contributions:

1. From an academic's perspective:
 - a) Different endcap locations have different levels of sales uplift, confirming that shoppers navigate through the store in a predictable manner (Larson et al., 2005; Sorensen, 2010). Consequently, the location of endcaps matters, in particular:
 - i. When products are offered at rear endcap, shoppers tend to purchase items from the in-aisle shelf rather than the rear endcap display.
 - ii. When products are offered at front endcap, shoppers tend to purchase items from the front endcap display rather than the in-aisle shelf.
2. From a practitioner's perspective:
 - a) This thesis contradicts practitioners' belief that front endcaps are better than rear endcaps in increasing sales. There is often a discrepancy between industry beliefs and academic knowledge, as practitioners lack the access to evidence-based knowledge and data (Bogomolova, Szabo, & Kennedy, 2016).

- b) Practitioners should utilise front endcaps as a secondary purchase place, which would help shoppers to complete their shopping task in a time-efficient manner. Shoppers spend very little time in-store and buy a few items only (Anesbury et al., 2016; Bogomolova et al., 2013).
- c) The endcap's sales effectiveness levels are not the same for all categories. Endcaps are more effective for high penetration and high purchase frequency categories. Endcaps have a negative effect for low penetration and low purchase frequency categories.
- d) Manufacturers have to take slotting fees and discount depth into account, as this affects the profit margin. The slotting fee still remains an industry secret due to the internal and unknown reference point (Federal Trade Commission, 2003).

The work conducted on this thesis also gives some useful suggestions in terms of research practice:

- a) Researchers need to closely follow the execution of the experiment by regularly visiting the stores in which the research is conducted. Stores have their own agendas, so unless the researcher keeps a close eye on the experiment, the research may not be conducted according to protocol.
- b) Researchers should maintain good relationships with the staff across all store hierarchies. Everyone is important in ensuring that the experiment is conducted as planned.
- c) Always plan to collect data on extra product categories and brands. Do not conduct this type of experiments under a tight deadline. Mistakes can happen, making some data unusable.
- d) Avoid known busy periods and quiet periods. The sales results during these periods are abnormal and should not be analysed. Also, during busy periods, store staff are busier, and potentially less willing to heed the researcher's requests.