

Brand Gravity®

Why Line Extensions of National Brands Attract One Another and Line
Extensions of Store Brands Repel One Another

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By

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Abstract

Brand Gravity®

Why Line Extensions of National Brands Attract One Another and Line Extensions of Store Brands Repel One Another

Brand gravity refers to the number of distinct product-relevant associations evoked by exposure to the brand. The phrase ‘distinct product-relevant associations’ is an important aspect of brand gravity. In order to contribute to a brand’s gravity, the associations that come to mind must be relevant for comparing and selecting alternatives from the specific product category in which that brand appears. Moreover, store brand (SB) associations are about the global retail brand (i.e., Coles or Woolworths), hence do not have gravity within any product category, whereas national brand (NB) associations are product category specific (e.g. Nescafe = coffee), and so create brand gravity.

When two products have more shared than unique brand associations, they are perceived to be more similar when both are featured together compared to when they are evaluated separately. Conversely, when two alternatives have more unique than shared brand associations, they are perceived to be less similar when both are featured together compared to when they are evaluated separately. Due to differences in promotional budgets and product category breadth, NBs evoke more product-relevant associations than SBs (i.e. NBs have higher brand gravity than SBs).

Hence, for SBs an efficient strategy for establishing multiple price points in a product category is to use different sub-brands under the same SB parent brand, because the multiple variants (i.e., line extensions) of the same SB “repel” one another to different price points. In other words, there is little or no attraction effect at the parent brand level, so the differences in the sub-brands produce a net repulsion effect.

However, this tactic does not work for NBs. Since NBs evoke many product-relevant associations, multiple variants of the same NB “attract” one another to the same price point because they share so many associations at the parent brand level. Barring a substantial investment of time and money to create equity at the sub-brand level, the net effect of introducing multiple line extensions under the same NB will be attraction, hence it will be difficult to establish multiple price points in this way. Instead, it is necessary to introduce different parent NBs into the same product category to establish multiple price points.

Thesis Certification

I, Peter William McDonald, declare that this thesis, submitted in fulfilment of the requirement for the award of Doctor of Philosophy, in the Graduate School of Management, Macquarie University, is wholly my own work unless otherwise referenced or acknowledged. This document has not been submitted to any other academic institution for qualifications.

A large, stylized handwritten signature in black ink, appearing to read 'P. McDonald'.

Peter William McDonald

December 2014

List of Publications

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Chapter 1 - Problem Definition

1.0 Supermarkets under siege

Chipping away and undermining the profitability of the supermarket ‘duopoly’ of Coles and Woolworths, the lost-cost (i.e., ‘hard discounter’) Aldi has consistently priced items 20% lower. To counter this ongoing trend and in pursuit of sustained profitable growth, both of these major retailers has ramped up their respective store brand portfolio strategies, often by importing senior management and marketing techniques from overseas. Meanwhile, in the past few years, their forerunners, Tesco and Sainsbury, have been similarly impacted by Aldi and Lidl (another ‘hard discounter’) whose combined share of the grocery market now stands at 8% in the UK versus 10% for Aldi in Australia (Ruddock, 2014; Smith, 2014). Challenging times indeed and with Australian shoppers becoming more frugal and seeking to reduce the cost of their weekly grocery shopping, offering the right mix of store brands and national brands becomes even more important for all retailers, not just the major supermarket chains.

This balance of this chapter discusses: a) how store brands have evolved: b) retailer attempts to stretch them upmarket; and c) tactics used to establish multiple price/quality points in a given product category. This will provide a wider context for the central research problem to be examined, but firstly some brand definitions.

A store brand (SB) is defined as “a consumer product produced by, or on behalf of a retailer and exclusively sold under the retailer’s own name or trademark, or sold as a stand-alone brand through the retailer’s own outlet/s” (Chaney & Holloway, 2004, p 5); also sometimes referred to as a ‘private label’, ‘retailer brand’, ‘own brand’ or ‘house brand’. While Bovee et al. (1995, p 249) define a national brand (NB), also called a manufacturer’s

brand, as a “brand created and owned by the producer of a nationally (or more widely) marketed product or service”.

In the 1970s and 1980s, SBs were seen as basic, low quality product offerings that competed with their NB counterparts on the basis of being the lowest possible price. To distinguish between these generic, no-frills product offerings, a three-tiered, “good, better, best” portfolio approach (Geyskens et al., 2010, p. 791) will be adopted, with its Economy (SBE), Regular (SBR), and Premium (SBP) quality tiers. Also researchers agree with a sequence of evolutionary development whereby, over time, up-stretched SBs (i.e., SBPs) have ‘helped to change consumer perception of a retailer brand from that of an *alternative product* option to that of an *alternative brand* option’ (Burt & Davis, 1999, p. 171). Although the sequence may vary by country, retail sector, and product category, genuine and persistent innovation by some retailers has upwardly stretched the consumer perceptions of SBs from being merely seen as a copyist to an originator of brands, from a follower to the true leader of a product category.

To reduce any perceived risk and consumer unease that may be associated with buying a SB extension, Wernerfelt (1988) reported that retailers typically adopt an umbrella branding strategy, using their own name. Highlighting the challenges of implementing such a strategy, Erdem and Chang (2012) suggest that ‘SBs need to provide consistent experiences within and across product categories as the existence of cross-learning effects means potential brand dilution when shoppers are not satisfied with their brand experiences’ (p. 100).

2.0 Proliferation of store brands and the effect on perceived variety and assortment in the store

2.1 Supermarkets

2.1.1 Australian market

Although SBs are not a new phenomenon, the Australian entry of the ‘hard discounter’ Aldi was a significant turning point in 2001, effectively forcing the major supermarket chains Coles and Woolworths (75% combined share of the \$80 billion grocery market; Nenycz-Thiel, 2011), to re-think their approach to private-label offerings. Within a few years, both added a mid-range, 2nd tier SB (i.e., SBR) to their private label portfolios, *Coles* (only) brand or Woolworths *Select*, either paired with their economy (i.e., SBE) sibling (*smartbuy* or *homebrand*, respectively) or featured alone in ‘highly commoditised’ product categories such as milk, bread, eggs, butter, flour, sugar, packaged fruits, and breakfast cereals. At the same time, research conducted by Miranda and Joshi (2003) suggested the importance of these major supermarkets positioning their SBs as similar, in terms of quality, to successful NBs but different to each other’s SBs.

A decade later, *Coles* (only) and *smartbuy*, Woolworths *Select* and *homebrand*, Aldi’s and (4th ranked) IGA’s exclusive SBs accounted for 1 in 3 items in a shopper’s basket or 25% of packaged grocery dollar sales; a major up-lift in dollar sales share from 14% six years ago and 10% in the 1990s (IBISWorld, 2010).

Over this period, surveys done in Australia and elsewhere (Nielsen, *Global Online Survey*, 2010) have reported an improvement in consumer perceptions of SB quality. Specifically in Australia, 46% agree ‘*private label brands are a good alternative to name brands*’, 42% accept that ‘*the quality of most private label brands is as good as name brands*’, and only 38% think ‘*private-label brands have cheap-looking packaging*’.

Research by Palmeira and Thomas (2011) found that a SBR such as Woolworths *Select* is perceived to be better quality than Woolworths *homebrand* (a SBE) when both are in a choice set. However, if *Select* is the only SB in a choice set, this ‘better quality’ positioning is not seen to be credible.

Storewide proliferation of SBs has caused some shoppers to report that their favourite (name) brand is no longer available (CHOICE, 2012). Harder evidence that shoppers are missing name brand food products has been reported by Roy Morgan Research. According to their survey, only 56% of shoppers said Woolworths carried their favourite brand/s, well below the peak of 63% in October 2011; over the same two year period, Coles had fallen even further, down 9% to 52% (AFN, 2013).

Forewarning that there may be limits to the proliferation of SBs, Sir Terry Leahy, CEO, Tesco UK, commented (Greenblat, 2012) that ‘there is a natural level, from sector to [supermarket] sector, between 30% and 50%, and it’s very important that you let the consumer choose. Don’t force the choice for the customer’.

2.1.2 Other country markets

It is evident that the relatively recent expansion of Australian supermarkets’ SB product portfolios is paralleling what occurred overseas decades ago, most notably in the birthplace of private label, the UK, where in 2013 SBs accounted for well over 49% share of dollar sales. The UK’s leading exponent of SB development, Tesco, generates 40% to 45% of its ongoing revenues via a three-tier (i.e. *Value*, *Tesco* (alone), *Finest*) portfolio augmented by a number of specialist sub-brands such as *Organic*, *Fair Trade*, *Kids*, and *Wholefoods* (IRI, 2013).

Research by Broniarczyk et al. (1998) suggested that shopper’s perceptions of the variety within an assortment, is determined more by the presence of a *favourite* brand than by the total number of brands offered. A later study by Ailawada, Pauwels, and Steenkamp

(2008) found that even a well-managed SB program can be overdone, as shoppers believed that the dominance of SBs constrained their choice. To add weight to their findings, the researchers cited the Sainsbury's chain in the UK as an example of a grocery retailer who had pushed SB portfolio levels far too high, with store traffic, revenue and profitability suffering.

At the other end of the scale is the USA, where SBs plateaued in 2013 at only 18% share of overall dollar sales (IRI, 2013). In this market, retail giant Walmart generates just 20% from private label via a two-tier (i.e. *Great Value*, *Sam's Choice*) 'hour-glass' SB portfolio plus over 30 exclusive, category and/or target user specific own brands such as *Ol'Roy* dog food, and *Equate* Health & Wellness products.

On a longer-term basis, analysis of business cycles in the USA and Europe by Lamey et al. (2007) confirmed the maxim 'that a country's private-label share increases when the economy is suffering and shrinks when the economy is flourishing' (p. 1). Challenging this, Steenkamp and Kumar (2009) use evidence from the German retail market to support a contrary view. During tough economic times in Germany from 2002 to 2003, the authors reported that the combined market share of Aldi and Lidl increased from 22% to 26%. However, in the more expansive period (in Germany) from 2004 to 2007 the combined market share of these two 'hard discounters' increased even further to 28%.

2.2 Department stores

2.2.1 Australian market

Like the major supermarkets, Myer and David Jones, the 'big two' of Australian department stores have been extending their range of private label brands, across apparel, beauty and housewares' products. A recent market study (2013) shows the more upmarket positioned David Jones focused on offering an *exclusive* range of well-known local and

international premium fashion brands, a limited number of private label brands such as *Milana*, *St James*, *Alta Linea*, and *Triplite*, while making minimal use of its own store name. Currently this limited portfolio of private label brands only accounts for 3.5% of David Jones' total sales. This is likely to dramatically change under their new owner (South Africa's Woolworths Holdings) whose CEO has 'plans to increase the proportion of own label brands from its present level of 3.5% to 20%, in as little as two years' (Speedy, 2014).

Straddling the upmarket and mid-market segments, sales of Myer's 57 private label fashion brands, such as *Basque*, *Innovare*, *Regatta*, and *Urbane*, have increased from 12% to 20% of this retailer's total sales, from 2007 to 2012. Quoted at the time (Kent, 2012) Myer's CEO, Bernie Brookes, noted that '*department stores' private labels were a (growing) worldwide trend because they could deliver higher margins*'.

At the discount department store (i.e., mid-market) level, Target primarily uses its store marque/name in a three-tier (good/better/best) price/quality approach. While at the low-end discount department store segment, Big W, in line with its ELP (i.e., Everyday Low Pricing) position derived 30% of its total sales in 2010 from private-label, mostly apparel, products.

2.2.2 Other country markets

Putting the disruptive economic effects of the GFC to one side, what follows is a brief re-cap of the different private label price/quality-tier approaches used, long-term, by some of the USA's leading department stores.

Macy's has historically built 20% of its total sales by primarily focusing on a premium only (i.e., 3rd tier) portfolio of sixteen private label clothing & accessories, and housewares brands. By comparison, the luxury department store Saks Fifth Avenue (akin to Harrods in the UK), has relied upon its eponymous 4th tier apparel & accessories brand to clearly position the store and contribute 20% of its total sales. While mid-market JC Penney has

typically used a portfolio of 2nd tier private label brands across the cookware, home goods, lingerie, men's and women's wear product categories, using a mix of *jcp* sub-branded and exclusive (to JC Penney) brands, collectively accounting for 35% of its overall \$ sales.

3.0. Upmarket stretch of SBs in supermarkets over the last 10-20 years and whether multiple price/quality points have been established in the minds of consumers.

3.1 Australia

Encouraged by increasing consumer acceptance of better quality SBs, and pursuing a publicly stated objective to increase SBs' share of \$ sales to 30% (or higher) by 2020, both Coles and Woolworths have stretched upwards to the 3rd tier, SBP level. It is important to note that the first 'rushed' attempt by Coles in mid' 2005 to market a premium tier SB, named after its founder *George J Coles*, quickly failed and was soon withdrawn.

More recently, across sixty or more existing food categories, each retailer has introduced a range of 'more indulgent', artisan/traditional recipe, and highest quality ingredient products, similarly or higher priced than the premium NB. Coles' SBP sub-brand is called *Finest* (same as Tesco), for Woolworths it's sub-branded as *Gold*. For product categories with a very diverse assortment such as coffee, ice cream and pasta, all three SBs will be featured, for those with a narrower assortment, it's usually a two-tier structure with the SBE most often missing (McDonald, 2010/2014).

Pilot research (Areni, Henry, & McDonald, 2013) suggests that even though quality perceptions of Coles *Finest* are better than *Coles* (only), these perceptions are lower than the competing NBs in the same choice set. However, it is evident that use of a consistent colour scheme, more distinctive and higher quality packaging for *Finest* and *Gold* enhances their ability to 'stand-out' within a given product category assortment, as well as unifies these

SBPs throughout the store. More robust research is yet to be published as to what extent Australian shoppers perceive any meaningful price/quality differences between these three evolving SB tiers.

3.2 Other country markets

Research examining UK purchase data revealed that when retailers introduce a new price/quality point into product categories that feature their SB at another price/quality point, sales of the new product cannibalise sales of the pre-existing variant of the SB (Geyskens et al., 2010; ter Braak et al., 2013), suggesting that two variants of the same SB at different price/quality points are seen as close substitutes by shoppers. Major grocery retailers have adopted different portfolio tactics to minimise or eliminate the potential threat of such cannibalisation.

First offered in 1997, almost half of Tesco's *Finest* premium range was over-hauled six years later with the re-launch of '*hundreds of food products - inspired by classic menus from the finest restaurants*' (Foster, 2003). This significant re-investment in the very high premium-ness of *Finest* not only reflects Tesco's precise segmentation of its SB portfolio but also its careful selection of categories, such as ready-made meals and chill-fresh foods. Categories for which a retailer has a natural advantage over an NB manufacturer (i.e. these products are difficult to prepare and distribute) which, for high-end shoppers, add real value, such as saving time, and fresh taste.

Similar to Tesco, Canada's largest food retailer, Loblaw's is a trailblazer in the SB arena, with its flagship SBP (*President's Choice/PC*) also built to uniquely satisfy shoppers' high-end needs and wants, instead of merely copying existing NB products. Within a two-tier only SB portfolio approach, ongoing success of this very well regarded SBP is of utmost

positioning importance to Loblaw's, with its low-end *No Name* SBE used to anchor its offer of everyday basics at the lowest possible price, across most product categories.

In summary, Tesco avoids the prospect of cannibalising its other SBs, by launching SBPs in unique product categories where, as a retailer, it has a natural advantage versus an NB manufacturer. Alternatively, Loblaw's reduces this potential risk by shelving all of its *No Name* SBE products together in separate aisles, while giving placement priority to its *President's Choice* SBPs when featured with NBs, in any product category assortment.

4.0. Determining whether SBs and NBs should use the same tactics to establish multiple price/quality points in a given product category

Although SBs are generally perceived as being inferior to NBs (Ailawadi & Keller, 2004), there are other important distinctions between SBs and NBs likely to affect perceptions of quality, particularly that NBs generally have higher levels of brand 'gravity' than SBs. Brand gravity refers to the number of distinct product-relevant associations evoked by exposure to the brand. The phrase 'distinct product-relevant associations' is critical. In order to contribute to a brand's gravity, the associations that come to mind must be relevant for comparing and selecting alternatives from the specific product category in which that brand appears. SBs may indeed evoke a rich network of associations, but there are at least two reasons to suspect that many of these associations will not be relevant to the specific product category in which it appears.

First, while major retailers spend millions of dollars to position and develop their retail store brand, they spend comparatively little within the specific product categories bearing their private label brand on store shelves (Nenycz-Thiel, M, 2003). By contrast, NBs have much higher promotional budgets in any given product category. Hence, NBs would be expected to elicit more product-relevant associations than SBs because more money has been

spent to create such brand associations. This may be one of the reasons that SBs perform comparatively well in product categories where promotional budgets of NBs are relatively low (Ailawadi & Keller, 2004); the gap in advertising spending, and hence brand gravity, is lower in these product categories.

Second, SBs like Coles or Woolworths differ from most NBs in that they have been extended over numerous, largely unrelated, product categories. By contrast, NBs have a much narrower focus, appearing in a single product category, or a small number of related categories. Hence, NBs have the ability to evoke product-relevant associations because they create more unique associations with specific product categories (Meyvis & Janiszewski, 2004). By contrast, the associations evoked by SBs tend to be more generic, store-based, but not generally relevant for comparing alternatives in any specific product category, as captured rather succinctly by Ailawadi and Keller (2004).

5.0. Key conclusion and central research question

While the above top-line view suggests that we can apply much of what has been learnt from prior SB research, across various retail sectors, it is evident that market dynamics, retailer profitability and consumer expectations have markedly shifted both in Australia and overseas, in the past 5-10 years. The consequences of which could have a major impact on the specific product portfolio approach retailers in all sectors, not just grocery, might successfully and profitably adopt in the future.

With this in mind, the central research question to be examined is stated as follows:

‘Have supermarket retailers been successful at establishing multiple price points for their SBs in the minds of shoppers? In other words, do shoppers believe that the multiple variants of a SB in a given product category really differ from one another in terms of overall quality or more specific attributes, or do consumers essentially see just one generic brand dominating an entire supermarket?’

Chapter 2 - Literature Review & Research Questions

1.0 Introduction

The purpose of this chapter is to provide the background literature to the thesis, with the goal of building the necessary foundations to examine the central research question –

‘Have supermarket retailers been successful at establishing multiple price points for their SBs in the minds of shoppers? In other words, do shoppers believe that the multiple variants of a SB in a given product category really differ from one another in terms of overall quality or more specific product attributes, or do consumers essentially see just one generic brand dominating an entire supermarket?’

The chapter is broadly organised into three sections. The first section introduces and reviews consumer perceptions of product quality including – a) the influence of shopper knowledge; b) how consumers judge the quality of brands; and c) how quality differences between brands impact price premiums.

The second section introduces and reviews the notion of expanding the brand franchise including – a) the use of brand extensions; and b) horizontal and vertical extensions.

The third section introduces and reviews category assortment perceptions including – a) the impact of favourite brand availability; b) the effects of product and attribute similarity; and c) the impact of SB proliferation on consumer choice.

An overview of select literature for each of these three major sections is separately provided overleaf (Tables 2.1a, 2.1b, and 2.1c).

Table 2.1a) Overview of Select Literature on Consumer Perceptions of Product Quality

<u>Study</u>	<u>Key Findings/Conclusions</u>
Alba & Hutchinson (1987)	Consumer knowledge has two major components - familiarity and expertise; familiarity defined as the number of product-related experiences that have been accumulated by the consumer; expertise defined as the ability to perform product-related tasks successfully.
Sivakumar, K. (2000)	Useful to conceptualise brands in distinct price tiers; for most product categories, a practical application is national brands versus store brands.
Areni, Duham, & Kiecker (1999)	POP displays can induce inter-brand substitution patterns that deviate from a general result (whereby the promoted brand gains from other brands), because they are based on changes in attribute salience.
Desai & Ratneshwar (2003)	Prior brand associations of familiar brands get carried over to new product variants. Importantly when a prior brand association causes an unfavourable perception on the positioning attribute of the variant, a strongly favourable association on another vital product dimension can result in a net positive effect.
Gijsbrechts, Campo, & Nisol (2008)	Multiple-store shopping may be triggered by category-preference complementarity – i.e., each store being preferred for at least one of the product categories.
Szymanowski & Gijsbrechts (2012)	Consumers use their experiences with one SB to update their beliefs about rival retailers' SBs, and these spill-overs are quite sizeable.
Dawes & Nencyz-Thiel (2013)	Categories in which many buyers of the SB of one retailer are as likely, or more likely, to also buy the SB of another retailer in the same category.
Rao & Monroe (1989)	Relationships between price and perceived quality are positive and statistically significant.
Richardson, Dick, & Jain (1994)	Unfavourable reactions to SB grocery items are largely the result of consumers' propensity to rely on extrinsic cues when assessing product quality.
Vanhuele & Dreze (2002)	Consumers possess a working knowledge of prices that is accurate enough for them to make good purchase decisions.
Ailawadi, Neslin & Gedenk (2001)	SB use is associated with price consciousness, low quality consciousness, and store loyalty.
Erdem, Keane, & Sun (2008)	Price is an important quality-signalling mechanism and frequent price cuts can have significant adverse effects on brand equity.
Jensen & Grunert (2014)	Vast majority of consumers either learn about (actual) prices consciously or unconsciously during grocery shopping.
Grewal, Krishnan, & Borin (1998)	Carefully managed price discounts will positively influence perceived value without any adverse effect on a brand's perceived quality.
Rao (2005)	Consumers chose to rely on price to make quality judgements because such a process was cognitively efficient.
Apelbaum, Gerstner, & Naik (2003)	Price premiums of NBs prevail regardless of whether they have a quality advantage over SBs or not; also price premiums of NBs increase with their quality difference.
Sethuraman (2003)	Non-quality equity (measured as the price premium consumers would pay for the NB over the SB even when they perceive the quality of these brands to be the same) plays a dominant role in why consumers would pay more for NBs and thus in consumers' choice between NBs and SBs.
Palmeira & Thomas (2011)	When a retailer offers a single SB, consumers expect it to be lower quality even when it is described as a premium brand. On the other hand, quality perception of a premium SB increases in the presence of a value SB. Importantly, quality perceptions of a value SB are not affected by the presence of a premium SB.

Table 2.1b) Overview of Select Literature on Expanding the Brand Franchise

<u>Study</u>	<u>Key Findings/Conclusions</u>
Aaker & Joachimsthaler (2000)	Brand relationship spectrum, with its four branding routes, is a powerful tool; however, nearly all organisations will use a mixture of all of them. A pure house of brands or branded house is rare.
Keller, K., L. (1993)	Relevant dimensions that distinguish brand knowledge and affect consumer response are the awareness of the brand (brand recall and recognition) and the favourability, strength, and uniqueness of brand associations.
Keller, K., L. (2003)	Academic research in branding can blend practical value with intellectual rigour.
Romaniuk, Bogomolva, & Riley (2012)	Generalisation that brand association responses are strongly and systematically linked to past brand usage still holds – both qualitatively and, to a large extent quantitatively.
Romaniuk, J. (2013)	Results reveal that the NBD-Dirchlet model is able to obtain predictions for a brand's mental market share.
Nenycz-Thiel & Romaniuk (2014)	Advertised NBs enjoy a higher level of knowledge amongst their non-users than do SBs; did not find this to be the case for small non-advertised NBs and small SBs.
Aaker & Keller (1990)	Relationship of a positive quality image for the original brand with evaluation of a brand extension was strong only when there was a basis of 'fit' between the two product categories.
Bottomley & Holden (2001)	Quality of the parent brand is a significant and important predictor of how consumers evaluate extensions. Transferability and complementarity appear to be relatively more important than substitutability.
Keller & Aaker (1992)	High quality brands stretch further than average quality brands – by introducing a series of closely related but increasingly distant extensions, it is possible to ultimately enter product categories that would have been much more difficult, or perhaps even impossible, to have entered directly.
Kim, Lavack, & Smith (2001)	Introducing a vertical brand extension that differs significantly in quality from the core brand has potentially negative implications as to how consumers will subsequently perceive the core brand, regardless of whether the brand extension is a step-up or step-down extension.
Lei, Ruyter, & Wetzels (2008)	Consumers perceive higher performance and financial risk in step-up extensions than in step-down extensions; this difference of risk perception is moderated by consumer's prior knowledge in the category.
Dacin & Smith (1994)	Findings reveal that under certain conditions (low portfolio quality variance), there is a positive relationship between the number of products affiliated with a brand and consumer's confidence in their evaluations of subsequent extensions.
Volckner & Sattler (2006)	Fit between the parent brand and the extension product, marketing support, parent-brand conviction, retailer acceptance, and parent-brand experience were particularly major contributors in driving brand extension success.
Meyvis & Janiszewski (2004)	Accessibility of beliefs about brand benefits contributes to the evaluation of brand extensions.
Collins-Dodd & Lindley (2003)	Found support for the influence of the store image on specific store brand evaluations.
Semejin, Riel, & Ambrosini (2004)	Store image perceptions influence consumers' judgement of SB quality – the more highly a consumer thinks of a store the more positively he/she will evaluate SB products.
Nenycz-Thiel (2011)	One of the most important differences between the retailers approach to private labels in Australia and the UK is the level and way private labels are promoted – private label advertising strategy in Australia is still in its infancy.
Wernerfelt, B. (1988)	Would expect umbrella branding to be used more when the products are, in some sense, similar; umbrella branding could serve as an unwavering signal where the firm introduces a possibly infinite stream of new products.
Erdem, T. (1998)	Consumer quality perceptions of products sharing the same brand name in two (or more) categories are affected by the experience in either (or any) of the categories.

Table 2.1c) Overview of Select Literature on Category Assortment Perceptions

<u>Study</u>	<u>Key Findings/Conclusions</u>
Bronarczyk et al. (1998)	Retailers might be able to make substantive reductions in the number of items carried without negatively affecting assortment perceptions and store choice, as long as only low-preference items are eliminated and category space is held constant.
Sloot & Verhoef (2008)	Delisting high market share brands has both absolutely and relatively, stronger negative effects on category sales than does delisting low market share brands; brand delistings have stronger negative consequences in product categories with which consumers bond and those with a large number of brands.
Hoch, Bradlow & Wansink (1999)	Information structure has a big impact on variety perceptions, though diminishing returns accompany increases in the number of attributes on which object pairs differ; people are more influenced by local information structure (adjacent objects) than nonlocal information structure – proximity matters..
van Herpen & Pieters (2002)	Attribute-based measures correlated less with assortment size than product-based measures did, and they were sufficient to predict consumers' perceptions of assortment variety.
Pan & Lehmann (1993)	When an inferior brand is introduced in the two-dimensional space, it enhances the perceptions of the superior existing brand, according to the range and frequency effects. As the dominating brand is pushed to a higher level in the perceptual space, its chance of being chosen increases, holding other factors constant. If the new inferior brand is positioned close enough to the existing brand, it may be categorised as in a subgroup with the superior brand and lose in comparison to the existing brand..
Simonson, I. (1989)	When decision-makers compare the dominating with the non-dominated competitor, they still take into consideration the advantage of the dominating relative to the dominated alternative; dominance and compromise relationships do not appear to be used as a substitute for thorough information processing.
Morales, Kahn, McAlister, & Broniarczyk (2005)	Consumers' perceptions of variety and satisfaction are dependent upon how the assortment is organised, both internally by the consumer and externally by the retailer.
Boatwright & Nunes (2001)	Category sales increased, though the likelihood of making a purchase decreased, and that the attributes of an assortment of products affected sales of the individual items within the assortment.
Chernev, A. (2005)	Probability of purchase from a given assortment is contingent on the complementarity of the features differentiating its options – in particular, non-complimentary choice sets were shown to be associated with a greater probability of purchase compared with complementary sets.
Zielke & Döbelstein (2007)	Results show that also for SBs different marketing strategies must be developed. A simple positioning by price is often not enough. In certain product groups premium strategies seem promising while for others a price-aggressive positioning is more favourable.
Geyskens, Gielens, & Gijsbrechts (2010)	Both economy and premium SBs cannibalise incumbent SBs. Economy SB introductions benefit mainstream-quality NBs because these NBs become a compromise or middle option in terms of quality in the retailer's assortment. The effects of premium SB introductions on premium quality NBs are mixed.
Mitra & Golder (2006)	On average, the effect of a change in objective quality is not fully reflected in customer perceptions of quality until after about six years. High-reputation brands are rewarded three years quicker for an increase in quality and punished one year slower for a decrease in quality compared to low-quality brands
Ter Braak, Dekimpe, Geyskens (2013)	Retailer SB margins differ noticeably depending on which entity produces the SB. Dedicated SB suppliers live up to their image of being mainly cost focused and provide higher SB margins to the retailer. In contrast, working with suppliers with a higher NB focus – which may be beneficial to the retailer in terms of more category, cost, and new product development insights – leads to lower SB margins for the retailer.

In concluding the literature review (refer 5.0) we have derived three overall conclusions and developed four key research questions.

2.0 Consumer Perceptions of Product Quality

2.1 How shopper knowledge influences product quality perceptions

Shoppers' ongoing demand to be knowledgeable about the quality of what they buy is not a new phenomenon as this 1939 quote attests 'one of the chief objectives of the consumer movement is the demand for information – information concerning the qualities of goods, prices, conditions of production and sale, use of goods ... consumers want lower prices and quality merchandise commensurate with the price they pay' (Dameron, 1939, p. 271).

Today, 75 years later, Australian grocery shoppers visit a supermarket 3-4 times per week, are exposed each day to retail advertising campaigns from the 'top two' advertisers in the country (Woolworths and Coles), flip/click through weekly store catalogues to readily compare the pricing of 'specials' at each retailer, in order to enlarge their shopper knowledge (KMPG & Quantum, 2013; Perry, 2014; Gijbreschts et al., 2003). However, it would be erroneous to assume that today's shoppers have 'perfect' price knowledge, before they visit a grocery store. Recent research by Jensen and Grunert (2014) suggests that 'the vast majority of consumers learn about (product) prices, whether consciously or unconsciously, during grocery shopping' (p. 332).

Alba and Hutchison (1987) asserted that shopper knowledge has two major components: **1.** familiarity; and **2.** expertise. They defined 'familiarity' as product experiences accumulated by shoppers and 'expertise' as their ability to successfully perform product-related mental tasks, such as pack recognition and buying decisions. The more shoppers shop, the more expert they become, thereby developing their product understanding. Different tasks require different types of expertise and task performance is improved by different types of shopper experiences, whether that is routinely shopping for groceries several times a week or something more complex like the online booking of an overseas

holiday. Moreover, successful performance of any particular mental task requires more than one type of shopper knowledge, such as an ability to effortlessly make purchase decisions or differentiate between products.

Proto-typicality, Alba and Hutchinson (1987) suggest, enables shoppers to make sense of the retail market, with considerable evidence that the most prototypical members of a category, usually a regular NB, are learned first (e.g., Nescafe = coffee, Kleenex = tissues). Similarly, Coles (*smart buy*) and Woolworths (*homebrand*) are prototypical SBEs using minimal colours, simple category cues and graphics, while clearly endorsed by their retail parent. Introduced more than 25 years ago, they remain the ‘original’ 1st-tier SBs for these retailers, are very low priced, provide ‘good enough’ quality, and are highly visible within the 1400-1500 product categories in which they now appear, storewide. For their 2nd-tier ‘better quality’ SBs (i.e., SBRs), *Coles* (alone) and *Woolworths Select*, both retailers use stronger category cues that tread a fine line between mimicking and overtly copying the regular NBs. Consistently promoted by these retailers as comparable in quality to the regular NB but at a lower price (i.e., better ‘value-for-money’), the SBs are backed by a 100% satisfaction/full refund guarantee.

Anderson (1991) states that ‘categorisation is justified by the observation that objects tend to cluster in terms of their attributes, be these physical features, linguistic labels, functions or whatever. Thus if one can establish that an object is in a category, one is in a position to predict a lot about that object’ (p. 411). Extending this view, Sivakumar (2000) posits that ‘price tiers’ is one dimension on which consumers categorize brands, with NBs v’s SBs considered to be a very practical classification for most grocery product categories.

Arranging an assortment into subcategories has been found to increase the salience of the organising attribute, such that consumers are more likely, than they would be normally, to take this attribute into consideration when making their purchase decision (Areni et al. 1999;

Desai et al. 2003). Also, it is argued, subcategories' heightened focus on a specific attribute, for Areni et al. wine region v's colour, affects product evaluation both at the product level (brand choice) and at the subcategory (variety perceptions) level.

'Consumers expect retailers to give high-equity brands (i.e., NBs) precedence in marketing communications such as in-store displays' (Buchanan et al. 1999 p. 346). By favouring NBs versus SBs retailers make it easier for a shopper to notice differences on various brand attributes, including potential price differences. In contrast, if the retailer favours low-equity brands (i.e., SBs), consumers are likely to infer from this atypical presentation that, in some way, the retailer regards the SB as similar to the NB. For instance, a 2nd-tier SB such as Coles *Total Care* toothpaste displayed at eye-level, between Colgate *Multi-Cavity Protection* and Colgate *Total* would be atypical and may prompt shoppers to re-evaluate the attributes, promised benefits, and relative pricing of each of these product offerings.

Consumers shop at multiple retailers for more than just sales promotion reasons (Gijbrenchts et al., 2008). Rather it would appear that multi-retailer shoppers prefer a certain type of store for some product categories and another type for other product categories. For instance, they might shop at a full-line, high turnover store such as Woolworths for 'fresh' product categories, and at a limited-line, high turnover store such as Aldi for staples such as cereals, household cleaners, paper products, and pasta. By so doing, a multi-retailer (or cross) shopper aims to achieve the best overall value for her/his grocery dollar.

With this in mind, let's recall what the Head of Woolworths supermarkets, Tjeerd Jegen publicly stated, '*Cross-shopping in Australia is enormous – it's significantly higher than in other markets*' (Mitchell, 2012).

Multi-retailer shoppers use their experience with one retailer's SBs to update their beliefs about rival retailers' SBs, with quite sizable spill-over effects in terms of perceived

quality and similarity (Syzmanowski & Gijsbrechts, 2012). Also, these spill-overs occur regardless of the SB's *actual* quality differences, with SB cross learning effects independent of any link with a retailer's brand name. Concluding their study, the authors posed this very pertinent question - 'Will shoppers abandon the notion of SBs as a discrete mental category, or will they construct a separate mental category for each SB quality tier, with cross-chain effects in each tier?' (p. 15).

From analysis of UK purchase data, Dawes and Nenycz-Thiel (2013) begin to answer this question, finding that SBs of one retailer also compete against the SBs of other retailers, especially in 'categories that are purchased more often, where the SB brands are typically well below the price of the NBs, and where there are frequent NB promotions' (p. 64).

Further supporting the opportunity for SB cross-learning to occur, are pilot study results which indicate that more than 75% of grocery shoppers regularly switch between Woolworths and Coles while less than 15% of each of these major retailers' customers exclusively shop there (McDonald et al., 2013). Furthermore, over half of Woolworths and Coles shoppers also do some of their weekly grocery shopping at 3rd placed Aldi. These significantly high levels of cross-shopping in Australia are aided by the fact that often these rival supermarkets are either located at opposite ends of the same shopping mall or within very close geographic proximity.

2.2 How consumers judge the quality of NBs and SBs

Acknowledging a lack of research consensus regarding the price-quality heuristic (e.g. the assumption "you get what you pay for", (Jacobson et al. 1987, p. 32), a meta-analysis of 36 studies by Rao and Monroe (1989) reported the effects of price, brand name, and store name on perceptions of product quality. For grocery products, the relationships between price and perceived quality, and brand name and perceived quality were found to be positive and

statistically significant. Importantly, the authors stressed that ‘judgments of quality based on price information are necessarily comparative and *perceived differences in prices* lead to relative judgments that product quality varies significantly’ (p. 356). Hence, the greater the perceived price difference between a NB and SB within a specific product category, the greater the difference we would expect in perceived quality, and vice versa.

Extending prior experimental research (Richardson et al., 1994) and drawing upon cue utilization theory, Dick et al. (1996) qualitatively identified what separates ‘good’ from ‘bad’ SBs. To quantify their findings, shoppers completed a survey featuring 28 typical grocery product categories, each of which had both NBs and SBs. When grocery shoppers evaluate any brand type, three intrinsic attributes matter: overall quality, ingredients’ quality, and taste. Furthermore, shoppers believed that the extrinsic cues of price, brand name, packaging, and advertising were indicators of *actual* product quality. Of these four extrinsic cues, the authors found that buyers of SBs were more reliant on price to gauge product quality than NB buyers.

Vanhuele and Dreze (2002) found that ‘a large majority of consumers hold some sort of price information for frequently purchased products (i.e., grocery products) in memory ... and the drivers of price knowledge indicate that frequent promotions of such products make normal prices more memorable’ (p. 80). Furthermore, even though most consumers are unable to accurately recall product pricing, their working knowledge is accurate enough to allow them to make good purchase decisions.

More recently, Erdem et al. (2008) have found that ‘price plays a very important role in signalling brand quality’ (p. 1123). Moreover, in cases where grocery shoppers’ estimation of a brand’s offer price was reduced, so was their perception of its quality. Additional support for these price signalling views comes from Beneke (2010), who reports that price does indeed appear to be a leading indicator of quality for low and medium priced SBs (i.e., SBEs

and SBRs) but not for the high priced ones (i.e., SBPs). The author suggests this lack of any strong association between high price and high quality may be due to the nature of 2nd tier SBs (in South Africa, *Woolworths* and *Pick 'n Pay*) which offer favourable quality and are more competitively priced than standard NBs, and hence represent superior value for money.

Investigating the effects of price discounts on consumer evaluation, Grewal et al. (1998) concluded that 'carefully managed price discounts will positively influence perceived value without any adverse effect on a brand's perceived quality' (p. 348). However, on a cautionary note, the authors suggest that frequent (versus occasional) price promotions may adversely affect a brand's perceived quality. Given mandatory unit pricing, on shelf and in-store/online catalogues, as well as grocery retailers prominently featuring a product's previous regular price combined with its promotional/reduced price, we might expect that Australian shoppers will be able to accurately assess the value of the products they consider and buy.

Proposing limits on price as an extrinsic quality cue, Rao (2005) suggests that 'beyond some point, price increases designed to suggest high quality might be perceived as incredible, or the improvements in performance relative to price increases may diminish. Similarly, reductions in price may yield reductions in performance up to a point, beyond which performance reductions may be arrested' (p. 403). From this we could infer that initially a reduced price lowers the perceived quality of a product, however if the reduced price is sustained over time its quality perceptions will eventually level out, rather than continue to be eroded.

Similarly, in the Australian context, we would suggest that supermarket shopper knowledge of *permanent* major reductions in the actual pricing of NBs and SBs (e.g. Coles' *Down/Down staying down* pricing strategy) versus their regular pricing, will gradually lead to dilution in the quality perceptions of incumbent SBs and any unadvertised, low equity NBs.

2.3 *How quality differences between SBs and NBs impact price premiums*

Investigating how quality differences between brand type (NB or SB), might impact price premiums, Apelbaum et al (2003) concluded that improvements in *actual* product quality do not automatically allow SBs to charge a price premium. To determine this, they modelled *objective* quality ratings, as judged by experts at *Consumer Reports*, and this body's nationwide survey of grocery item pricing for 78 grocery product categories (each offering at least one SB).

Two specific results highlight the challenge of elevating the *perceived* quality of SBs:

- a) On average NBs received a 37% price premium relative to SBs, even when no *actual* quality difference existed between NBs and SBs; and
- b) NB pricing was likely to be significantly higher than SB pricing, even in product categories in which the *actual* quality of the SBs met or exceeded that of the NBs.

Sethuraman (2003) reached the same conclusion – ‘consumers stated their willingness to pay an overall price premium of about 37% for NBs over SBs’ (p.14), attributing 80% of this price premium to brand-equity, split 68%/12% between perceived *non-quality/quality* equity respectively. *Non-quality* equity was defined as ‘brand utility that arises from brand image and brand associations, as distinct from those related to perceived quality’ (p. 4).

Keller (1993) asserted that brand associations could be classified into three major categories of increasing scope: attributes, benefits, and attitudes. Krishnan (1996) and Romaniuk et al. (2012) have shown that high-equity brands (i.e., NBs) versus low-equity brands (i.e., SBs), have a greater number of these type of associations and more net positive associations. To build the *non-quality* part of their brand equity, NBs consistently use advertising to create a differentiated brand image, unique brand and category specific associations which are reflective of the brand's positioning in the consumer's mind. In

comparison, SBs typically derive their *non-quality* equity from the extended halo effects of their retail parent's overall positioning and promotional activities (Collins-Dodd & Lindley, 2003; Semeijn et al. 2004), rather than from any ongoing dedicated SB promotional support.

Operating on the premise that 'when a retailer carries two SBs, consumers will expect them to differ in quality', Palmiera and Thomas (2011) examined the effects on consumer perceptions if a grocery retailer ('unidentified') were to adopt a two-tier SB portfolio strategy. Their first study used SB positioning descriptions to test three conditions: 1. SBE alone; 2. SBR alone; and 3. SBE and SBR together. The authors found that a SBR is perceived to be 'better' quality than a SBE when both SBs are together in a choice set.

However, the 'good enough' quality perceptions of a SBE are largely unaffected by the inclusion or otherwise of a SBR. In net, without a SBE in the choice set with which it can be compared, the SBR's intended 'better quality' positioning will be diminished.

In a second related study, to test the perceptual effects of either SB being introduced after the other in a more realistic context, the authors combined the SB positioning descriptions with visual stimuli. Invented packages for SBE and SBR products were displayed along with three incumbent NBs. Each of the product visuals was supported by the same size and key attribute details but the *actual* shelf prices were only provided for the three NBs. Under these conditions, the authors reported that: 1. introduction of a SBE after a SBR pushed the latter's quality perceptions upwards; and 2. introduction of a SBR after a SBE had no downward effects on the quality perceptions of the SBE.

Importantly Palmiera and Thomas comment (2011), that in a follow-up (unpublished) study, 'when consumers were provided with the *real* names and descriptions of the SBs' intended positioning/s, the same pattern of results (albeit weaker) was observed, presumably due to consumers' preconceived opinions regarding the *real* SBs' (p. 547). Whilst acknowledging the need to effectively convey meaningful differences between the SBs in a

portfolio, it is also important to gauge how a retailer's parentage contributes to the positioning/s of its SBs.

In a study of main grocery buyers using choice sets that varied in terms of the mix of *real* NBs and 'retailer identified' *real* SBs, the key results were as follows: 1. Although the actual prices were quite similar, respondents reported higher price and quality perceptions for a SBR compared to a SBE when both SBs were in the same choice set; and 2. Despite being twice the price of its regular NB sibling, respondents reported virtually identical price and quality perceptions for a premium NB when both NBs were in the same choice set (McDonald et al. 2013).

In part, the SBR result of the McDonald et al. (2013) study replicates what Palmeira and Thomas' observed in their first study. While the quite surprising NB result warrants further investigation to more fully understand the perceived similarity in perceptions of the two ('intended to be') differently positioned *real* NBs (i.e., NBR versus NBP). However, the 'brand gravity' model (detailed in Chapter 3) proposes an explanation for why two price/quality variants of the same NB will be perceived as being more similar than two price/quality variants of the same SB.

3.0 Expanding the Brand Franchise

3.1 Use of brand extensions

Brand extensions, or new product line extensions under an existing name, are a popular strategy for expanding a brand's consumer franchise. In a study of new product launches, Research International reported that 65% were line extensions of an existing brand, 17% were category extensions, and only 18% involved the launch of a new brand (Riley et al., 2013). In a slow growth, price sensitive, and highly competitive grocery market, such as most country markets are now experiencing, line extensions provide a low risk growth strategy for

marketers of well-known brands as well as retailers to expand the portfolio of store brands offered to their existing customers.

The brand relationship spectrum (Aaker & Joachimsthaler, 2004) is the well accepted method to describe the structure of a brand portfolio, which proposes four basic strategies. At one end of the spectrum is the *branded house* strategy, where a master (or umbrella) brand has the primary role to drive meaning across multiple product offerings. At the other end is the *house of brands* strategy, which involves a set of independent, stand-alone brands. In between these two endpoints is the *sub-brands* strategy, which are brands connected to the master brand and which augment or modify the associations of the master brand, and the *endorsed brand* strategy with independent brands endorsed by another (typically corporate) brand.

As they evolve, companies often use a mix of the strategies between the endpoints to extend their brand (s) either by design or through acquisition (Tauber, 1988). From its early beginnings as a branded house for the ‘real thing’ in package and syrup forms, Coca-Cola now endorses the quality of four major cola sub-brands, *Original*, *Diet*, *Zero*, and *Life* aimed at different consumers, with unique functional and social benefit associations. At the same time, across various segments of the soft drinks market the Coca-Cola company follows a house of brands approach, using *Fanta* for flavoured soft drinks, *Powerade* for sports drinks, *Mt Franklin* for spring waters, and *Mother* for energy drinks.

Studies suggest that, when extending a brand, similar quality perceptions most likely will be transferred if there is a logical ‘fit’ between the master brand and the sub-brand (Aaker & Keller, 1990; Bottomley & Holden, 2001). If a sub-brand promising similar category and benefit associations succeeds, the reputation of the master brand is strengthened. Alternatively, if the sub-brand fails to deliver what it promises, the master brand’s reputation

may, at that time, be damaged (Keller & Aaker, 1992) but, if it is a strong brand, eventually recover (Volckner et al., 2008). Learning from their failed attempt, three decades ago, to introduce 'New' Coke, the Coca-Cola company has undertaken more extensive product development, consumer and market testing, before putting its highly valued brand name on its *Zero* and *Life* sub-brands.

The owner of the master brand must decide how closely or not it wants to associate itself with the image and reputation of the 'new' brand extension by varying the level of 'visible' endorsement from major to token. Campbell's gives major endorsement to each of its soup and liquid stock brands. While a smaller, less visible Arnott's name/logo provides a more token endorsement of quality across its portfolio of biscuit sub-brands such as *Shapes* and *Tim Tams*.

Woolworths and Coles have opted, albeit differently, to use distancing techniques, as they continuously evolve their respective store brand portfolios. Increasingly Woolworths' SB products do not have its store name on the front of their packaging. Instead this retailer uses a very distinctive graphical symbol (referred to as the 'Wapple') alongside unique linguistic identifiers for each of the quality-tiers in its SB portfolio. For Coles, a small store name supports unique sub-brand names for its upper and lower quality-tiers while the store's name, most often alone, appears prominently on packaging for its mid-quality tier.

Apart from a logical 'fit' between the master brand and an extension product, four other factors have a major influence on brand extension success. They are: a) experience extending the parent brand; b) track-record of successful brand extensions; c) brand owner's ability to get retailer acceptance; and d) marketing support that fully leverages the equity of the parent brand (Volckner & Sattler, 2006). However, success for the brand owner is not only measured in their own terms but also that of the retailer, and within the grocery industry's

well established thirteen week ‘perform or perish’ timeframe. The following Australian example will illustrate how these success factors come into play for NB owners.

Faced with the challenge in early 2009 of generating above average sales growth for *Vegemite*, the brand owner Kraft elected to line extend the brand by addressing consumers’ love/hate taste relationship with the product. In net, how could they offer a milder tasting version to those who had tried and rejected *Vegemite*, without undermining the nutritional benefits of this unique yeast spread launched 90 years ago? Sifting through household usage research Kraft found that, for the sake of variety, many consumers often combined *Vegemite* with other spreads, triggering development of a product that mixed *Vegemite* with *Philadelphia* cream cheese, an existing Kraft sub-brand. Generating extensive media and consumer interest, this line extension was initially launched with ‘*Name it*’ where the *Vegemite* sub-brand name would eventually appear. Over the next three months, consumers were invited to try it and then suggest what it should be called, in response to the advertising claim, ‘It’s Vegemite but Different!’ A total of 48,000 names were received and the sub-brand name selected by Kraft and inserted in the next production run of the product was *iSnack2.0*. Within four days the public reaction to the *iSnack2.0* sub-brand name was extremely negative, so Kraft quickly consumer tested six alternative sub-brand names, and within a week *Cheesybite* replaced *iSnack2.0* (Lee, 2009).

Today, five years later, *Cheesybite* sales have shrunk to a negligible level from a peak in 2009-2010 whereby it contributed to more than a doubling of shelf space for the expanded *Vegemite* portfolio. With the benefit of hindsight, we can more fully diagnose why it failed. While on the surface there appeared to be a logical ‘fit’, in truth there really wasn’t. Consumers already chose to modify the *Vegemite* taste experience, putting it in a jar and selling it to them merely provided a level of convenience but at the same cost as the regular version. Not only does the milder tasting *Cheesybite* sub-brand fall well short of delivering

the same nutritional benefits as its strong tasting *Vegemite* parent, there are real differences in their versatility of usage and shelf-life. Once opened, because of its cream cheese base *Cheesybite* ‘lives’ in the fridge, whereas the shelf-stable *Vegemite* parent ‘lives’ in the pantry. Perhaps, it is no surprise that the Kraft corporate name no longer appears prominently on the front of the *Vegemite* packaging, given that loyal consumers blamed the management of the Kraft company, not the *Vegemite* brand, for the numerous mistakes made by this failed line extension of their much loved brand.

Most shoppers know that supermarket retailers don’t make the store brands they sell and are satisfied with the full refund policies in place to compensate for a bad product (Alba & Hutchison, 1987). Similarly, through how they position themselves retailers can convince shoppers that it’s acceptable to buy a SB to serve in a social setting. However, when quality variance within a product category is high, it is thought to be quite difficult for a top-tier quality SB to be chosen in preference to an incumbent NB, due to the associated financial risks (Semeijn et al., 2004). What comes readily to mind is the chances of a similarly priced bottle of Woolworths *Gold* olive oil being favoured over one from well-known chef, *Jamie Oliver*.

It is considered better for a brand to take ‘little steps’ (i.e. by introducing a series of closely related but increasingly distant extensions) rather than extend too far too soon (Keller & Aaker, 1992). Following such a measured approach makes it possible for a brand to ultimately enter product categories that would have been more difficult or perhaps even impossible for it to have entered directly (Meyvis & Janiszewski, 2004). Generally for store brands, the concept of ‘good value’ has been a desirable and transferable association across many product categories. Hence, the potential scope for using that concept to extend SBs can be extremely broad and the store name applied across many different products (Ailawadi & Keller, 2004).

When it comes to selecting which of the many categories to enter, the retailer has a number of advantages – a) learn from the mistakes of NB companies; b) regularly monitor category purchase data; c) pick the potential ‘winners’; and d) negotiate with suppliers, including NB companies, to develop and produce an SB equivalent (s). In addition, a retailer’s ownership of a network of stores facilitates experimentation, ensuring that proven SBs achieve full distribution and good shelf placement. As a result, this can substantially reduce the marketing resources a retailer needs in order to accurately position its SBs vis-à-vis the competing NBs in each product category. However, umbrella (or store) branding campaigns are widely used by retailers, such as Coles and Woolworths, to clearly and efficiently signal their overall store offering (Aaker, 1996: Collins-Dodd & Lindley, 2003). Moreover, when a potentially infinite stream of new products is being introduced, umbrella campaigns are considered to be a very efficient approach for a brand to adopt (Wernerfelt, 1988; Nenycz-Thiel & Romaniuk, 2014). Though consumers might initially expect the quality of brands that carry the retailer’s store name to be correlated, research suggests that ‘they update their perceptions through use experience in multiple categories’ (Erdem, 1998, p 347).

3.2 Horizontal & vertical brand extensions

As much of what has been discussed in the previous section relates to horizontal brand extensions, this section will largely focus on vertical extensions, but first an explanation of the difference between these two forms of brand extension. In the case of a ‘horizontal’ brand extension, an existing brand name is applied to a new product introduction in either a related product category, or in a product category completely new to the company (Sheinin & Schmitt, 1990). Colgate extending its oral care franchise beyond toothpastes to toothbrushes, dental floss, and then mouthwashes is an example of the first case. Coles setting up a

financial services' division to sell insurance and credit card products to its retail customers illustrates the second case.

'Vertical' brand extension involves introducing a line extension in the same product category as the existing brand, but with different formulas or sizes, packaging (bottle, can, tube, colour, surface design), delivery formats (aerosol, stick, roll-on, pump, concentrate, liquid, tablet, pod), or a combination of these (Keller & Aaker, 1992; Sullivan, 1990). This type of brand extension can either amount to an upward or downward stretch in terms of the quality level and price point versus the existing parent brand. Introducing a vertical brand extension will inevitably create some ambiguity about the quality level of the parent brand, and in most situations, also has negative effects on how the line extension is evaluated by consumers (Dacin & Smith, 1994).

While distancing techniques such as those previously discussed can enhance differentiation within an enlarging portfolio, attribute elaboration (i.e., information cues) should also be used to reduce the degree of consumer uncertainty about the existing parent brand's quality and to minimise cannibalisation. For example, using the Australian Dental Association's Seal of Approval on a SBR toothpaste enhances its overall quality, and clearly distances this variant from its SBE sibling. Interestingly, research suggests that 'a parent brand receives more positive evaluations after the introduction of a step-up extension, the reverse applies if a step-down extension is introduced' (Lei et al., 2008, p 268). It seems that the step-up line extension has the potential to elevate overall consumer perceptions of the parent brand, while the step-down line extension is seen to be quite similar to the parent brand and seen as a reasonable substitute for it.

By way of illustration, what follows is a tabular re-cap (refer Table 2.2 overleaf) of how Woolworths updated its distancing techniques (graphical, linguistic) and used differing levels

of elaboration, when it launched an ‘up-stretch’ *Gold* line extension within the three quality-tiers of its SB pasta portfolio.

Table 2.2 - How Woolworths Uses Distancing Techniques & Attribute Elaboration for Pasta

SB Quality Tier/s	Brand Elements	Front Graphical/Visual	Front Linguistics/Text
Best/3rd-tier	Wapple symbol/ <i>Gold</i> text	Italian village, Italian Wheat	100% Durum Wheat
		Brown & Gold – key colours	Spaghetti Pasta
		(see-through cellophane pack)	Produced in Campania, Italy using the best
			100% Southern Italian durum wheat semolina.
			Our Gold pasta is bronze extruded and slowly
			dried for the best texture and quality pasta.
Better/2nd-tier	Wapple symbol/ <i>Select</i> text	Wrap-around winner ribbon	100% Australian Durum Wheat Semolina
		Black & Red – key colours	Spaghetti Thin No. 1
		Australian product symbol and	Crafted by a leading Australian pasta maker for
		(see-through cellophane pack)	perfect ‘al dente’ texture. Cooks in 7 mins
			No artificial preservatives, colours, preservatives
Good/1st-tier	Wapple symbol/ <i>homebrand</i> text	Wrap-around panel	Spaghetti
		White & Black – key colours	100% Australian grown wheat, Cooks in 13 mins
		Australian product symbol and	
		(see-through cellophane pack)	

4.0 Category Assortment Perceptions

4.1 Impact of favourite product availability

Numerous researchers have established that grocery shopper perceptions of the variety and choice within a product assortment are influenced by the presence or absence of a shopper’s favourite brand. Using a series of experiments, Broniarczyk et al. (1998) varied the number of SKUs (stock-keeping units), category space, and the availability of *favourite* (i.e., high-preference = NB) items. In their first experiments they did not exceed a 25% reduction in category space or SKUs. For their second round, the authors also tested the impact of reducing the category space and SKUs by 50% and 75%. Consistently, Broniarczyk et al. (1998) found that ‘consumer assortment perceptions were significantly affected by the simple cues of availability of a *favourite* item, the amount of space devoted to the category, as well as the more effortful cue of the total number of SKUs offered’ (p. 174)’. When

favourite items were available, consumer assortment perceptions were unaffected by a modest (up to 25%) reduction in the category space or the number of SKUs offered.

The authors concluded that reducing category space by eliminating less popular SKUs did not affect assortment perceptions, as *favourite* brands were now more visible, hence easier to find. The reverse also applied, the obvious presence of a *favourite* brand matters more than the total number of brands offered in determining shoppers' perceptions of variety within an assortment. In support of the 'less is more' principle, Kahn (1998) argues for the removal of redundant choices to reduce consumer confusion. Furthermore, Fitzsimons (2000) suggests that for some retailers 'it may be desirable to have a lower assortment and the lower out-of-stocks that are typically associated with a smaller number of products in a category' (p. 264).

Adopting a different approach, Sloot and Verhoef (2008) used an online panel supplemented by grocery shopper exit interviews to evaluate the effects of delisting a brand from a category assortment. Delisted brands were designated as either *high* or *low* equity (i.e., NB or SB) by forty experts in terms of three brand-equity dimensions: perceived price, perceived quality, and perceived consumer preference. Delisting *high-equity* brands was found to have stronger negative effects on category sales and store choice than did delisting *low-equity* brands. Moreover, even delisting small share yet *high-equity* brands that cater to the needs of a specific segment of shoppers would potentially cause these shoppers to switch stores, rather than choose another brand from within the reduced category assortment.

Supermarket shoppers in Australia have been experiencing an ongoing reduction in the availability of their favourite brands – 'just over half of customers say their (main) store stocks the brands they want, 56% for Woolworths, 52% for Coles, and these numbers have been in decline since a peak in 2011'. For Aldi shoppers, only 29% said this store stocked their preferred brand with Roy Morgan Research also reporting that 'Aldi shoppers have

always been more likely to seek out their favourite brands in addition to their Aldi purchases' (Langley, 2013).

As a consequence, Australian consumers are more likely to perceive limited assortment and variety in the supermarket category.

4.2 Effects of product and attribute similarity

Product and attribute similarity are considered to be important dimensions underlying consumer perceptions of assortment. Hoch et al. (1999) and later van Herpen and Pieters (2002) each developed similar mathematical models of assortment perception to test the same hypothetical visual stimuli that varied in terms of colour, shape, and name.

The uniqueness of product pairs was found to be critical, with assortments containing duplicates severely penalised (Hoch et al., 1999). Their results also showed that attribute differences between products had a significant positive impact on assortment perceptions even when the number of products was held constant. However, if another unique feature was added it had diminishing returns if the products already differed on multiple attributes.

An assortment was perceived to be varied to the extent that multiple attribute levels were present and was largest when all attribute levels occurred in equal proportions (i.e., symmetrical dispersion) and a low level of association existed between attribute pairs (van Herpen & Pieters, 2002). Results also showed that although significant, choice set size had a much smaller impact on assortment perceptions than attribute dispersion and disassociation, particularly if the initial assortment size was large.

Prompted by van Herpen and Pieters' (2002) study, Hoch et al. responded (2002) that 'although people can pursue a pure product or a pure attribute-based approach to variety perception, it seems more likely that both approaches contribute to the perception process ... it is difficult to disentangle the two approaches' (p. 346). So whether a shopper looking for

ice cream walks into Coles or Woolworths with triple chocolate or caramel peanut brittle flavours in mind, or the Bulla and Sara Lee parent brands, she is doing so simultaneously within an extensive category assortment that has been knowingly organised from lowest to highest price (Simonson, 1999; Morales et al., 2005). In sharp contrast, ELP pricing for micro-category assortments at Aldi has the same shopper largely thinking about key attributes such as smoked salmon or durum wheat pasta, then choosing from a handful of exclusive ‘look-a-like’ brands, such as *Almare* or *Remano*.

For actual grocery products, where consumers have a priori preferences, brand name and flavour have been shown to more important than pack size in affecting their assortment reaction (Boatwright & Nunes 2001, 2004). Hence, it might be suggested that consumers would perceive a small choice set that varies on important attributes as offering greater assortment than a larger choice set that offers minimal variation on important attributes. While Chernev (2005) has argued that ‘assortments in which options are differentiated by non-complementary features are likely to be associated with a greater probability of purchase than assortments with options differentiated by complementary features’ (p. 748).

In net, in addition to the presence of a consumer’s favourite brand consistent, uniqueness (or dissimilarity) contributed by other products in the choice set also has an important influence on consumer perceptions of an assortment.

4.3 Impact of store brand proliferation on consumer choice

Positive public support for the recent SB proliferation by the two major Australian supermarkets is reflected in comments such as: “We are seeing 26% of shoppers who are trading up within private labels to get the benefits and quality they don’t believe they are getting from (national) brands’, says Kosta Conomos, Head of Retail, Nielsen (Speedy, 2013) who singled out Coles’ top-tier SB, *Finest*.

In the context of new brand entry, simple ‘choice set’ experiments conducted by Pan and Lehmann (1993) confirmed the existence of range and frequency effects (Parducci, 1974), and a categorisation/object density effect (Krumhansl, 1978). More explicitly, when an inferior brand (i.e., SBE) is introduced in the two-dimensional space used by Huber et al. (1982), it enhances the perceptions of the superior existing brand (i.e., SBR). Furthermore, as this dominating brand is pushed to a higher level in the perceptual space, its chances of being chosen increases, other factors being held constant. While if the new inferior brand is positioned close enough to the existing brand (e.g. SBR), it may be categorised into a subgroup with the existing (superior) brand and lose in comparison to the existing brand (Carpenter & Nakamoto, 1989).

Somewhat later, Zeilke and Dobbelsstein (2007) found no perceptual barriers (in Germany) to the likely success of new SB entries in assortments of everyday supermarket products. Rather it is more important to convince potential customers about the specific benefits of a new SB. The best performers were those SBs at either end of the price scale, suggesting that being stuck in the middle is a risky place indeed. The authors report that ‘a price advantage of 40% for a SBE leads to the highest purchase willingness followed by a SBP with a 10% price saving versus a leading NB’. The lowest purchase willingness was for a SBR with a 20% price differential which the authors ‘assume is not a substantial saving at this (middle) price point, but possibly big enough to evoke negative price-quality associations’ (p. 118).

A recent personal example will serve to illustrate how, in even a two brand choice set, a SBR might lose out to a regular NB. When visiting her local supermarket a female shopper notices a new look-a-like range of flavoured spring waters from *Select*, Woolworths’ SBR, next to a similar range from the leading NB, *Mount Franklin*. Both are categorised as ‘lightly sparkling spring water’ – lightly carbonated, flavoured with a drop of natural lemon, lime,

orange, or berry, similarly labelled and sold in transparent recyclable packaging. Much to her surprise she also notices that the actual price of *Mount Franklin* is only 20¢ more, so she quickly decides –‘Why not buy the original!’ After all she has some reservations about *Select*’s actual product quality, especially as there is no Woolworth’s *homebrand* spring water with which to compare.

As an indicator of what might happen as Australian retailers more fully develop their multi-tier SB portfolios, we delve into the research done by Geyskens et al. (2010). Using 13 years of purchase data for two major UK retailers the researchers reveal how the sales and share performance of incumbent NBs and SBs were affected by the introduction of down-stretch and up-stretch SBs (i.e., SBEs and SBPs). Supplemented by a study of consumers’ brand quality perceptions undertaken at the end of the observation series (Mitra & Golder, 2006), the authors interpreted these perceptions and their experimental results by drawing upon the context effects’ principles of similarity, attraction, and compromise.

As this would appear to be the first, if not the only, published research that attempts to untangle the interactive effects between *actual* NBs and *actual* SBs in expanding choice sets, it is important to simply describe how consumer perceptions of brand quality were obtained. Existing users of two product categories (breakfast cereals, canned soups) were asked to assign all NBs and SBs to one of three quality-tiers: 1. Top brands (NBs or SBs that excel on quality); 2. Mainstream brands (NBs or SBs that are middle of the road in terms of quality); and 3. Secondary brands (NBs or SBs that offer a basic, passable quality level). Survey respondents were also asked to rate the quality of all NBs and SBs on a five-point scale from ‘very low’ (1) to ‘very high’ (5). These respondent results were used to validate the quality-tier classification/s independently provided by two expert judges (Geyskens et al., 2010, p. 795-796).

The following tables (2.3, 2.4) show the choice sets of incumbent brands, pre and post the introduction of an SBE and an SBP within each of the food product categories. Although the ‘other’ brands have not been specified, the choice sets when ‘down’ or ‘up’ stretched, would have comprised at least 7 or 8 brand items, respectively.

Table 2.3 – Adding a SBE to an Existing Choice Set (‘Down-stretch’)

<u>Choice Sets</u>	<u>Pre-Introduction</u>	<u>Post-Introduction</u>
‘Basic/1 st -tier’ SB	Nil	SBE1
‘Mid-range/2 nd -tier’ SB	SBR1	SBR1
‘Top/3 rd -tier’ SB	Nil	Nil
‘Mid-range/2 nd -tier’ NBs	NBR1, NBR2, NBR3	NBR1, NBR2, NBR3
‘Top/3 rd -tier’ NBs	NBP1, NBP2	NBP1, NBP2
Other/unspecified brands	n/a	n/a
<u>Total Brands*</u>	6 plus	7 plus

Table 2.4 – Adding a SBP to an Existing Choice Set (‘Up-stretch’)

<u>Choice Sets</u>	<u>Pre-Introduction</u>	<u>Post-Introduction</u>
‘Basic/1 st -tier’ SB	SBE1	SBE1
‘Mid-range/2 nd -tier’ SB	SBR1	SBR1
‘Top/3 rd -tier’ SB	Nil	SBP1
‘Mid-range/2 nd -tier’ NBs	NBR1, NBR2, NBR3	NBR1, NBR2, NBR3
‘Top/3 rd -tier’ NBs	NBP1, NBP2	NBP1, NBP2
Other/unspecified brands	n/a	n/a
<u>Total Brands*</u>	7 plus	8 plus

Geyskens et al., 2010, report (p. 804) that:

- i) Mid-range quality NBs (i.e., NBRs) usually win from an SBE introduction, however NBPs do not always win from the introduction of 3rd-tier SBs (i.e., SBPs). It appears that SBPs compete more successfully with incumbent NBPs on quality than on price; and
- ii) Mid-range quality SBs (i.e., SBRs) significantly lose share, in effect are cannibalised, as a result of SBE or SBP sibling introductions.

Furthermore, in line with the brand-type similarity effect, the advent of ‘up-stretch’ SBPs punish incumbent SBRs significantly more than would be expected under the proportional draw scenario. Likewise incumbent SBEs suffer disproportionately from the introduction of SBPs. In marked contrast, for ‘down-stretch’ SBE introductions, brand-type similarity still outweighs the attraction effect but is compensated by the compromise effect, hence share losses for the SBEs were not significantly disproportionate.

In net, this and a study by ter Braak et al., (2013) would suggest that a retailer’s incumbent SB offerings will invariably suffer from the introduction of up-stretch or down-stretch SB quality-tiers. In contrast, SBE and SBP introductions are not necessarily detrimental, and in some cases may even be beneficial, for the sales and market share/s of incumbent NBs.

To place this ‘stretch-the-limits’ SB research into an Australian context, it’s worth noting that for several decades the major supermarkets have regularly updated their SBEs (offered in most categories) to appeal to grocery shoppers’ price-conscious attitude not just to price-conscious shoppers per se. Hence, there would appear to be little need or evidence to suggest that Australian retailers will place any further emphasis on down-stretch as they face a big enough challenge to credibly up-stretch the perceived quality of SBPs within their overall portfolio/s.

In effect setting up this up-stretch portfolio challenge, Huber et al. (1983) suggest that ‘promoting an item as having *new* advantages may shift perceived market boundaries, but only a rare new product extends the absolute limits of what was previously available ... extending the boundaries of a market must be tied to a shift in what is salient rather than what

is possible' (p. 38). While Dick et al. (1996) provide direction as to the intrinsic attributes (e.g., overall quality, ingredients quality, performance, taste) and extrinsic attributes (e.g., price, brand name/s, packaging) shoppers are likely to use to evaluate new SBPs.

Two examples will illustrate the different approaches Woolworths is currently taking to promote its 3rd-tier SB, Woolworths *Gold*. In both cases, this retailer is actually pitching *Gold* at what could be described as a *super*-premium level. For ice cream it wants *Gold* to be seen as a credible alternative to existing NB *super*-premium offerings, for olive oil it's currently the only *super*-premium option, perhaps hoping to draw this business away from specialty food retailers. The use of a consistent colour scheme, more distinctive and higher quality packaging clearly enhance the visibility of *Gold* within each product assortment. Each of the *Gold* variants tells a premium quality ingredients story, but Woolworths goes much deeper with *Gold* olive oil, dramatizing the story of the maker (i.e., Salvatore Curtera), and his family's Sicilian heritage in similar fashion to a boutique wine. Moreover, it's evident that product pricing is being used to force a re-appraisal of consumer's thinking about these *super*-premium SBs. For ice cream, *Gold* is twice the relative price of its standard SBP offering but 20% below the leading *super*-premium NB (*Maggie Beer*), for olive oil, *Gold* is twice the price of the nearest NB alternative (*Jamie Oliver*) and more than triple the relative price of its SBR. All of which suggests that Woolworths is finding its way and currently testing different 3rd-tier (ostensibly 4th-tier) strategies with the certainty of distribution, specific shelf placement and readily available shopper data enabling this retailer to do so.

However, the potential customer risk Australian supermarkets face by their rapid store-wide proliferation of SBs, especially up-stretch ones, has been flagged by Ailawada et al. (2008). These authors suggest that even a well-managed SB program can be overdone, as the dominance of store brands can constrain the level of choice available to shoppers. To add weight to their findings, they cited the Sainsbury chain in the UK as an example of a grocery

retailer who pushed SB portfolio levels far too high (viz. above 50%), with store traffic, revenue and profitability suffering.

Nevertheless, Australian shoppers have enjoyed five years of grocery price deflation, to quote ‘somebody spending \$100 today in Coles gets 10% more items than they did in 2008, for a Woolworths’ shopper it’s 14% more items’ (McCrann, 2014). In addition, market research continues to point to ‘price as the single most important driver of supermarket choice, outranking shopping experience and inspiration’ (KMPG/Quantium, 2013). Therefore, it is hardly surprising that in an endeavour to boost shopper loyalty and improve their overall profitability, the two major supermarket chains are keen to entice some of their shoppers to buy their up-stretch SBs at the expense of incumbent NBs and some potential cannibalisation of their SBRs and SBEs.

5.0 Conclusions and Research Questions

From the preceding literature review, the following overall conclusions have been derived. 1. Although grocery shoppers are very familiar with what brands the major retailers sell and how these brands are presented, they are still very reliant on price to evaluate product quality; 2. Vis a vis manufacturers of national brands, retailers face a more difficult challenge extending their brand, in particular vertical (i.e., line) extension ones, to expand their customer franchise; and 3. An assortment’s variety and choice perceptions are reduced if the shopper’s favourite brand is absent and/or similar brands are being offered; and 4. Consumers perceive greater price/quality differences between two variants of the same SB when they are featured together in the same assortment compared to when they are featured separately.

Two research questions that arise directly out of this literature review have been developed for SBs (i.e., **RQ1**, **RQ2**), and two research questions more speculative in nature (i.e., **RQ3**, **RQ4**) developed for NBs.

RQ1: Does adding a product to a choice set that shares the same SB as another in the choice set create an ‘repulsion effect’ such that the price/quality perceptions of the two products are less similar than if each product appeared separately (i.e., holding the other brands in the choice set constant)?

RQ2: Is the ‘repulsion effect’ stronger for the more familiar of the two products bearing the same SB parent?

RQ3: Does adding a product to a choice set that shares the same NB as another in the choice set create an ‘attraction effect’ such that the price/quality perceptions of the two products are more similar than if each product appeared separately (i.e., holding the other brands in the choice set constant)?

RQ4: Is the ‘attraction effect’ stronger for the less familiar of the two products bearing the same NB parent?

These research questions are explored further in the following chapter, which presents the brand gravity model as a basis for understanding why consumers react to multiple variants of the same NB in an assortment differently (i.e., attraction effects) compared to when they encounter multiple variants of the same SB in an assortment (i.e., repulsion effects).

Chapter 3 – The Brand Gravity Model

1.0 Introduction

This chapter details the ‘Brand Gravity’ model that has been developed to encapsulate the four research questions (cf. Chapter 2), which will be investigated in Studies 1 and 2 (Chapters 4 and 5, respectively). In short, the ‘Brand Gravity’ model sets out why line extensions of the same national brand (NB) “attract” (i.e., are perceived as being more similar when featured together in the same choice set rather than appearing separately), whereas line extensions of the same store brand (SB) “repel” (i.e., are perceived as being less similar when featured together in the same choice set rather than appearing separately).

2.0 The concept of ‘brand gravity’

A brand’s ‘gravity’ is driven by the number of relevant brand associations elicited by exposure to the brand; the more relevant the associations elicited, the greater the brand’s gravity. The prediction regarding ‘attraction’ effects for multiple price/quality variants of the same NB featured together and ‘repulsion’ effects for variants of the same SB featured together is based on a simple premise that follows from the research reviewed in the previous chapter (Hoch et al., 1999). When two products have more shared than unique brand associations, they are perceived to be more similar when both are featured together compared to when they are evaluated separately. Conversely, when two alternatives have more unique than shared associations, they are perceived to be less similar when both are featured together compared to when they are evaluated separately.

Hence, in terms of brand gravity, shared associations attract two alternatives in a choice set to one another, whereas unique associations not shared by another alternative repel one another. The prediction that multiple variants of the same NB attract one another in an assortment stems from the idea elaborated on below, that the two NB variants have more shared associations than unique associations, whereas the prediction that multiple variants of the same SB repel one another follows because two variants of the same SB have more unique associations than shared associations.

There are multiple reasons why line extensions of the same NB in a given product category have more shared than unique associations, but line extensions of the same SB in a given product category actually have more unique than shared brand associations.

According to the Brand Gravity model, the essential difference between NBs and SBs is the amount of brand equity at the parent brand level. In general, NBs have a lot and SBs have very little. Within a given category SBs evoke few product-relevant associations because they have a relatively low advertising spend and they have been extended over multiple, largely unrelated, product categories in the store (Ailawadi & Keller, 2004). Hence, it is relatively easy for a SB to establish multiple price/quality points in the same product category via sub-branding, but only if multiple sub-brands are featured in the same product category. This is because the sub-brands establish differences in price/quality for a parent SB that evoke very few common product-relevant associations to ‘draw’ the multiple variants together in the minds of consumers (i.e., the parent SB is generic).

By contrast, NBs generally have considerably more brand equity. That is, a typical NB evokes a relatively large number of product-relevant associations due to a relatively large advertising spend focused on a single brand in a specific product category. Hence, within a given product category, when an NB attempts to compete at multiple price/quality points via

sub-branding the ‘gravitational force’ of the parent NB is strong relative to any attempt to differentiate the multiple variants in terms of price/quality at the sub-brand level (Lei, de Ruyter, & Wetzels, 2008). That is, the two NB variants share many product-relevant associations at the parent brand level relative to the unique price/quality point association at the sub-brand level, so the net effect is attraction when both are featured together. Hence, SBs and NBs must adopt different line-extension strategies to compete at multiple price/quality points in the same product category.

3.0 The brand gravity of SBs versus NBs

Most FMCG products have at least two levels in their brand architectures, a “parent” brand and a sub-brand. For SBs, the parent brand is the retail brand (e.g., Coles, Woolworths), and the sub-brand identifies a price/quality point (i.e., *smartbuy*, *Select*). For NBs, the parent brand is a manufacturing company (i.e., Nestle) or a brand name created for a product category (e.g., Nescafe, Sorbent), and the sub-brand conveys a specific attribute, benefit, user type, and/or price point (e.g., *Blend 43*, *Everyday*). For many of the products on supermarket shelves NBs and SBs are positioned at three distinct price/quality points in a given product category, and SBs are generally positioned at lower price/quality points than NBs, creating the potential for six distinct price/quality points in a product category (Fornari, Grandi, & Fornari, 2011; Geyskens, Gielens, & Gijsbrechts, 2010).

Although SBs are generally perceived as being inferior to NBs (Ailawadi & Keller, 2004), there are other important distinctions between SBs and NBs likely to affect perceptions of quality, particularly that NBs generally have higher levels of brand ‘gravity’ than SBs. In general, distinct product-relevant associations are created and strengthened via a uniqueness principle. A brand associated with almost every product category in the store, as

is often the case with SBs, has no unique link to any specific product attribute, and so will evoke few if any product-relevant associations in any given product category. By contrast, NBs have a much narrower focus, appearing in a single product category, or a small number of related categories. Hence NBs have the ability to evoke product-relevant associations because they create more unique associations with specific product categories (Meyvis & Janiszewski, 2004). By contrast, the associations evoked by SBs tend to be generic, retail store-based, but not generally relevant for comparing alternatives in any specific product category (Ailawadi & Keller, 2004, p.339).

4.0 Attraction and Repulsion Effects in Assortment Composition

The fundamental prediction of the brand gravity model is that parallel effects will not hold for SBs and NBs when two variants of the same parent brand appear in an assortment with different price/quality points, as signalled by different sub-brands. As shown in Figure 3.1, in both cases the different sub-brands introduce a unique price/quality association that creates a point of difference between the two variants. However, the amount of shared, product-relevant brand associations at the parent brand level differs in the case of SBs versus NBs. As shown in the top panel, the SB evokes few if any product-relevant associations other than the general notion that SBs are usually of inferior quality to NBs. Hence, there is very little attraction between the two alternatives at the parent brand level, whereas the sub-brands convey a clear difference in price/quality point. In the case of two alternatives sharing the same SB, the net effect is that the economy positioned sub-brand and the premium positioned sub-brand will “repel” one another when both are featured in the same assortment (Palmeira & Thomas, 2011). The “repulsion” effects are formalized in the four research hypotheses that are presented below (refer Figure 3.1).

H_{1a}: A lower quality variant of a SB will be evaluated more favourably when featured alone compared to when it is featured alongside a higher quality variant of the same SB.

H_{1b}: A higher quality variant of a SB will be evaluated more favourably when featured alongside a lower quality variant of the same SB compared to when it is featured alone.

H_{2a}: A higher quality variant of a SB will be evaluated more favourably than a lower quality variant of the same SB when they are featured together in the same assortment.

H_{2b}: There will be little or no difference in the evaluation of a higher quality variant of a SB and a lower quality variant of the same SB when each is featured alone.

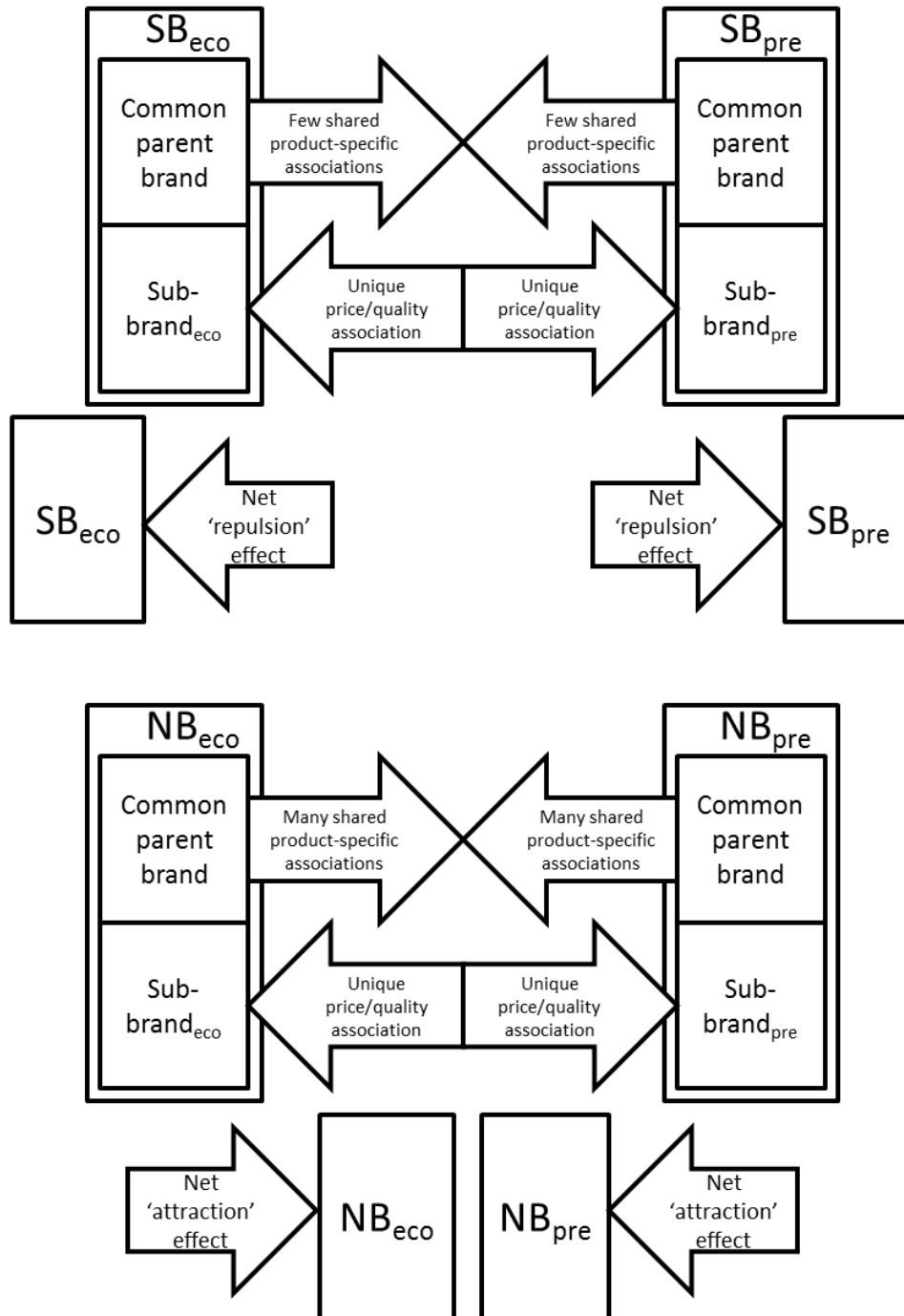


Figure 3.1. Brand Gravity Effects of Vertical Line Extensions for SBs versus NBs

By contrast, two variants of the same NB, positioned at different price/quality points would not be expected to repel one another if featured together in the same assortment. As shown in the bottom panel of Figure 3.1, because the shared NB evokes a much wider array of product-relevant associations, the attraction effect at the parent brand level is much stronger than the repulsion effect at the sub-brand level. In short, the two variants of the same

NB share a large number of product-relevant attributes relative to the unique price/quality points indicated by the sub-brand. Hence, the brand gravity model predicts that two variants of the same NB, positioned at different price/quality points, will attract one another if featured in the same assortment. The “attraction” effect is formalized in the following four research hypotheses:

H_{3a}: A higher quality variant of a NB will be evaluated more favourably when featured alone compared to when it is featured alongside a lower quality variant of the same NB.

H_{3b}: A lower quality variant of a NB will be evaluated more favourably when featured alongside a higher quality variant of the same NB compared to when it is featured alone.

H_{4a}: A higher quality variant of a NB will be evaluated more favourably than a lower quality variant of the same NB when they are each featured alone.

H_{4b}: There will be little or no difference in the evaluations of a higher quality variant and a lower quality variant of the same NB when they are featured together in the same assortment.

As mentioned in the introduction to this Chapter, a subset of these research hypotheses is tested in Study 1 (Chapter 4).

Chapter 4 – Study 1 – Method and Results

1.0 Method

1.1 Design

Using a 2 x (product category) x 3 (choice set [product category]) between-subjects laboratory experiment, the following subset of research hypotheses, formalised in the previous Chapter, was tested:

H_{1a}: A lower quality variant of a SB will be evaluated more favourably when featured alone compared to when it is featured alongside a higher quality variant of the same SB.

H_{2a}: A higher quality variant of a SB will be evaluated more favourably than a lower quality variant of the same SB when they are featured together in the same assortment.

H_{3a}: A higher quality variant of a NB will be evaluated more favourably when featured alone compared to when it is featured alongside a lower quality variant of the same NB.

H_{4b}: There will be little or no difference in the evaluations of a higher quality variant and a lower quality variant of the same NB when they are featured together in the same assortment.

1.2 Sample and procedure

One-hundred and eighty participants were recruited via a consumer panel, using the main screening criterion that they had to be the principal grocery shopper for their household.

The experiment was completed on-line at their convenience during a two-week period wherein they could log on using an assigned username and password. The initial screen instructed participants that they would be examining “some displays of items within various grocery product categories” in order to “answer some specific questions”. They were next shown one of six choice sets involving photos of six packages of brands arranged in two rows of three across the screen. All of the choice sets in a given product category included the same two NBs (i.e., NB1, NB2) and SBs (i.e., SB1, SB2) from two of three supermarket chains, Coles, Woolworths, and Aldi. The experimental manipulations involved altering the remaining two brands comprising each choice set. Participants rated all six brands in the choice set in the order of the display from left to right, then top row to bottom row.

The classification of brand variants into tiers was based on *actual* per unit price differences between each of the NBs and SBs; the assumption being that consumers consider percentage price differences rather than absolute differences (Monroe, 1973). Photos of *real* packages were favoured over linguistic or logo prompts to ensure stimulus commonality and consistency across *all* subjects. A decision supported by offline pilot research (McDonald, 2012) and extensive (n = 22,623) empirical evidence that “distinctive packaging plays a large role in enhancing quality gap perceptions between brands” (Steenkamp et al., 2010, p. 1021).

1.3 Independent variables

Product category

Product category was a between-subjects factor. Participants evaluated choice sets comprised of instant coffee brands or ice-cream brands.

Choice set [product category]

Choice set was nested within product category in order to allow for a series of planned contrasts. For coffees, the variants being contrasted were: a) SBs - Coles Gold (SBR3), Coles Finest (SBP3), and b) NBs - Nescafe 43 (NBR3), Nescafe Gold (NBP3). For ice creams, the variants were: a) SBs - Coles 97% Fat Free (SBR3), Coles Finest (SBP3), and NBs - Peters Original (NBR3), Peters Light 'n Creamy (NBP3).

For ice-creams, one of the three choice sets also included the regular and premium variants of the same SB (SBR3/SBP3). Another included the economy and regular variants of the same NB (NBE3/NBR3), and a third set included the economy variant of the NB and the regular variant of the SB (NBE3/SBR3). Hence, the target brand was SBR3 for the comparison between the NBR3/SBR3 and SBR3/SBP3 groups (i.e., 1 versus 2 variants of the SB, respectively), and NBR3 for the comparison between the NBR3/SBR3 and NBE3/NBR3 groups (i.e., 1 versus 2 variants of the NB, respectively). In each choice set, the positions of the target brands were held constant. Figure 4.1 presents the SBR3/SBP3 choice set for ice-cream.



Figure 4. 1: The SBR3/SBP3 Choice Set for the Ice-cream Product Category

For instant coffees, one of the three choice sets included the regular and premium variants of the same SB (SBR3/SBP3); another included the regular and premium variants of the same NB (NBR3/NBP3), and a third set included the regular variant of the SB and the premium variant of the NB (SBR3/NBP3). Hence, the target brand was SBR3 for the comparison between the SBR3/NBP3 and SBR3/SBP3 groups (i.e., 1 versus 2 variants of the SB, respectively); and it was NBP3 for the comparison between the SBR3/NBP3 and NBR3/NBP3 groups (i.e., 1 versus 2 variants of the NB, respectively). One again, the positions of the target brands in the choice sets were held constant. Figure 4.2 presents the NBR3/NBP3 choice set for instant coffee.



Figure 4.2: The NBR3/NBP3 Choice Set for the Instant Coffee Product Category

1.4 Dependent variables

Perceived price

Participants were first asked, “On a 7-point scale from 1 (lowest) to 7 (highest), would you please rate the price of each brand included in the display?” The brands were listed in a column to the left of the screen, and on the right side of each one an array of 7 horizontal circles appeared, labelled 1 through 7 in order from left to right. For each brand, participants moved their cursor over the appropriate circle and clicked, filling in the blank circle. When participants had rated each of the six brands, they advanced to the next screen.

Perceived quality

Participants were then asked “On a 7-point scale from 1 (lowest) to 7 (highest), would you please rate the quality of each brand included in the display?” using the same response format. The above price and quality 7-point Likert scales adopt the approach taken by other researchers (Keller & Aaker, 1992; Volckner et al., 2008) when similarly exploring consumer perceptions of brand and product items.

Exploratory factor analysis revealed that for each brand perceived price and perceived quality loaded on the same factor, with loadings in the .84 – .95 range, and communalities in the .70 – .90 range, for the various target brands. Hence, a single dependent variable was created from the sum of the two measures (Williams et al., 2010; Ghauri & Gronhaug, 2010).

2.0 Results

2.1 Testing the four hypotheses

Because choice set was nested within product category, and parent brand type (i.e., NB vs SB) was not fully crossed with whether a brand appeared alone or with another variant of itself in the choice set, hypotheses H_{1a} and H_{3a} were tested via a series of planned contrasts

within each product category. In each case, whether the target brand was featured alone or with another price/quality variant of itself was the independent variable. With respect to **H_{1a}**, the results of the planned contrast indicated that, while the regular variant of the SB instant coffee was evaluated more favourably when it appeared alone ($M = 3.22$) compared to when it was featured alongside the premium variant of the same SB instant coffee ($M = 2.95$), the difference was not significant ($F(1,58) < 1$). Similar results were obtained for the SB ice-cream. The regular variant of the SB was evaluated more favourably when it appeared alone ($M = 4.03$) compared to when it was featured alongside the premium variant of the same SB ($M = 3.83$), but the difference was not significant ($F(1,58) < 1$). Hence, the results do not support **H_{1a}**.

The results regarding **H_{3a}** revealed that the premium variant of the NB instant coffee was evaluated more favourably when it appeared alone ($M = 5.57$) compared to when it was featured alongside the regular variant of the same NB ($M = 5.02$; $F(1,58) = 5.05$, $p. < .05$). Likewise, with ice-cream the premium variant of the NB was evaluated more favourably when it was featured alone ($M = 5.87$) compared to when it was featured alongside the regular variant of the same NB ($M = 5.23$; $F(1,58) = 7.22$, $p. < .01$). These results support **H_{3a}**. A higher quality variant of an NB is evaluated more favourably when it is featured alone compared to when it is featured with a lower quality variant of the same NB. The higher quality variant of the same NB is attracted to the lower quality variant when both are featured together compared to when the higher quality variant is featured alone.

H_{2a} and **H_{4b}** were tested via a series of within-subjects t-tests for the groups exposed to multiple variants of the same parent brand. For instant coffee, results indicated that the premium variant of the SB ($M = 4.17$) was evaluated more favourably than the regular variant of the same SB ($M = 2.95$; $t(1,28) = 4.71$, $p < .0001$). The same basic pattern was true for ice-

cream. The premium variant of the SB ($M = 4.88$) was evaluated more favourably than the regular variant of the same SB ($M = 3.83$; $t(1,28) = 2.88$, $p < .01$).

Hence, consumers do perceive differences in price/quality between two variants of the same SB when both are featured in the same assortment. H_{2a} is supported.

With respect to H_{4b} , the results for instant coffee indicated that premium variant of the NB ($M = 5.02$) was evaluated more favourably than the regular variant of the same NB ($M = 4.68$; $t(1,29) = 3.96$, $p < .0005$). However, this was not the case for ice-cream. There was little or no difference in the evaluation of the regular variant ($M = 5.23$) and the economy variant ($M = 5.17$; $t(1,29) < 1$). The results regarding H_{4b} were mixed. The results for ice cream support H_{4b} , but the results for instant coffee do not.

2.2 Determining how much variance the dependent variables share

As noted above, for the eight focal brands examined, price and quality perceptions were positively correlated at the 0.01 level of significance, ranging from lows for Nescafe *Gold* (0.401) and Peters *Original* (0.482) to highs for both sub-brands of Coles *Finest*, instant coffee (0.743) and ice cream (0.795).

To further extend the price/quality correlation results, the coefficient of determination (CoD) was calculated for each sub-brand to understand the shared variance between these two dependent variables. As shown in Table 4.1, on average, price and quality perceptions accounted for a higher percentage of the shared variance for SBs, compared to NBs. The exceptions being Coles ice cream (SBR), which had a relatively low CoD, and Nescafe *Blend 43* instant coffee (NBR), which exhibited a relatively high CoD. But in general, these results are consistent with the notion that brand gravity is higher for NBs compared to SBs. In other

words, the influence of brand associations on quality judgements is stronger for NBs than SBs, whereas price perception has a relatively stronger influence on quality judgements for SBs compared to NBs.

Table 4.1: Coefficients of Determination (Price/Quality) for SBs and NB Variants

<u>Store Brand/s</u>	<u>Variants</u>	<u>CoD</u>
Coles (ice cream)	SBR	25.40%
Coles <i>Gold</i> (coffee)	SBR	51.41%
Coles <i>Finest</i> (ice cream)	SBP	55.20%
Coles <i>Finest</i> (coffee)	SBP	63.20%
<u>National Brand/s</u>		
Nescafe <i>Gold</i> (coffee)	NBP	16.08%
Peters <i>Original</i> (ice cream)	NBR	23.23%
Peters <i>Light'n Creamy</i> (ice cream)	NBP	37.33%
Nescafe <i>Blend 43</i> (coffee)	NBR	52.56%

3.0 Discussion

A visual summary of the hypothesis test results has been created in the form of eight graphical plots. The first set (i.e., Figures 4.3 to 4.6) show the results for the SBs. Consistent with the brand gravity model, participants perceived a clear difference between two variants of the same SB positioned at different price/quality points when both were featured in the same choice set (i.e., H_{2a} was supported). However, this perceived difference did not emerge because the regular variant was penalised by the inclusion of the premium variant. The rating of the regular variant was not influenced by the presence of the premium variant. This was true for the SB instant coffee and the SB ice-cream (i.e., H_{1a} was not supported).

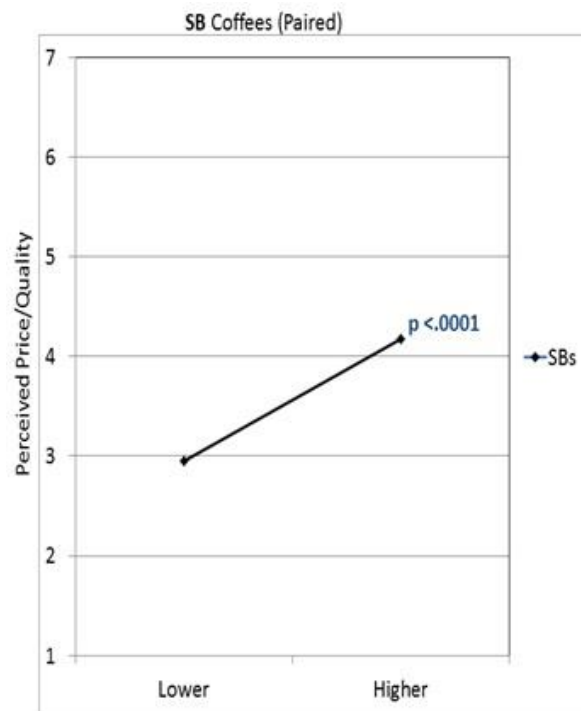


Figure 4.3 – SB Coffees – ‘Repulsion’ Effect

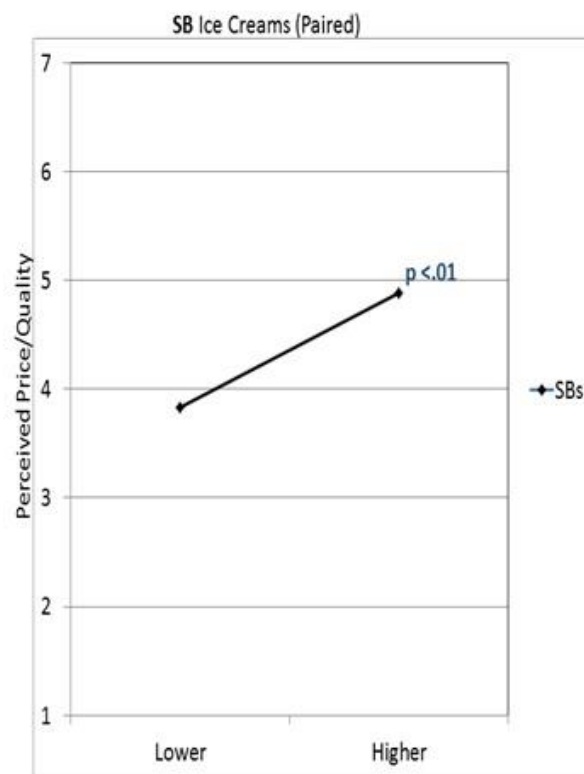


Figure 4.4 – SB Ice Creams – ‘Repulsion’ Effect

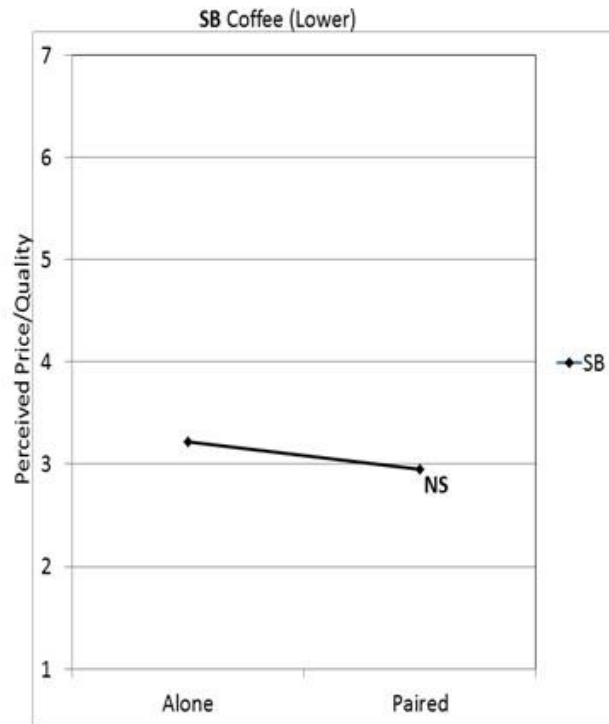


Figure 4.5 – SBL Coffee – Results

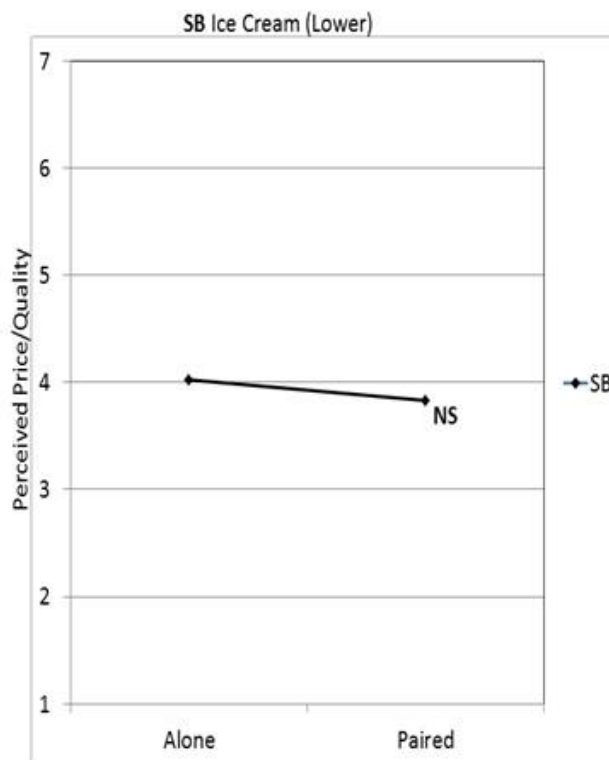


Figure 4.6 – SBL Ice Cream - Results

By contrast, the second set (i.e., Figures 4.7 to 4.10) show the results for NBs. The higher quality version of the NB was penalised by the inclusion of a lower quality version of the same NB in the choice set. This was true regardless of the particular price/quality points selected. For the instant coffee NB, the premium price/quality variant was rated less favourably when the regular variant was also in the choice set. For the ice-cream NB, it was the premium variant that was penalised by the inclusion of a regular positioned variant in the choice set (i.e., H_{3a} was supported). The net effect of penalising the higher quality variant was that the two NB variants were evaluated similarly when they were featured together in the assortment, though the difference between the premium and regular variants of the NB coffee remained significant (i.e., some support for H_{4b}).

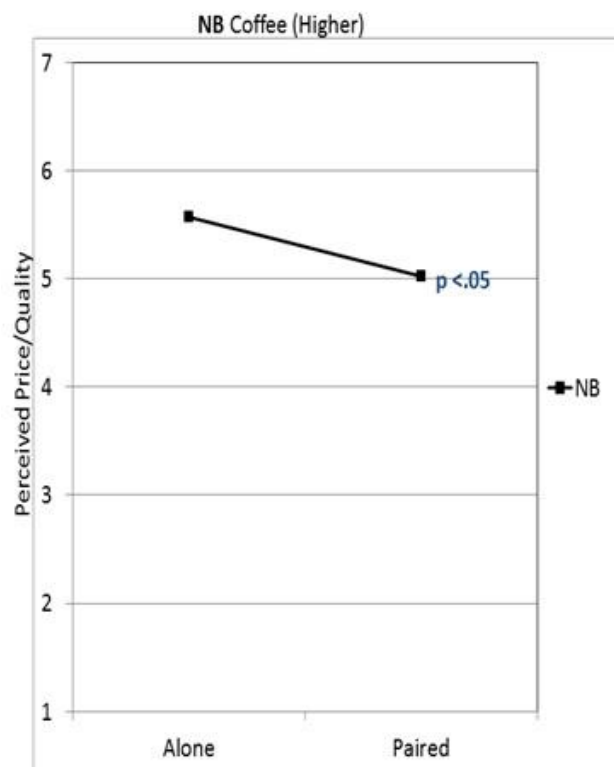


Figure 4.7 – NBH Coffee – ‘Attraction’ Effect

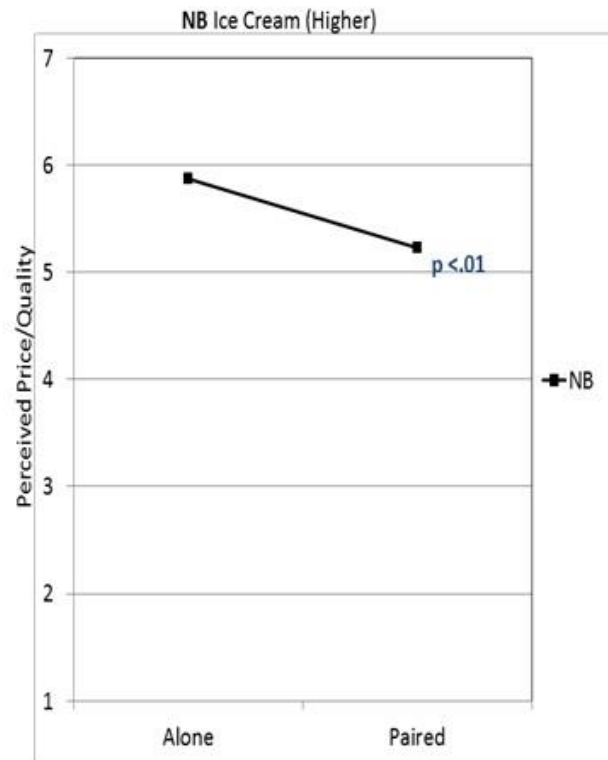


Figure 4.8 – NBH Ice Cream – ‘Attraction’ Effect

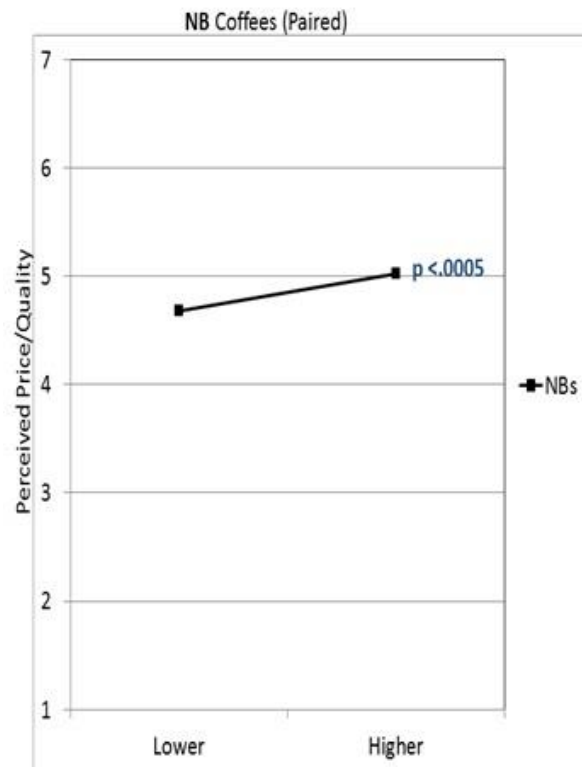


Figure 4.9 – NB Coffees – ‘Attraction’ Effect

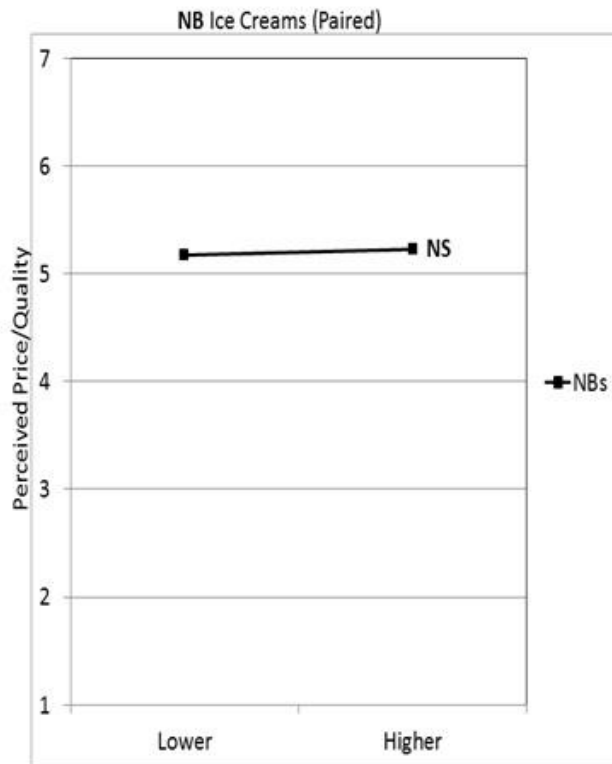


Figure 4.10 – NB Ice Creams - Results

Taken together these results suggest that repulsion and attraction effects may be more pronounced at the premium end of the product category. Premium variants of SBs are repulsed up-market by the presence of a lower quality variant of the same SB in the assortment, whereas premium variants of NBs are attracted down-market by the presence of a lower quality variant of the same NB in the assortment.

4. Implications and conclusion

The brand gravity model draws the somewhat surprising conclusion that it is actually harder for brands that evoke a rich collection of product-relevant associations to use that brand equity to make up-market or down-market stretches in the same product category. This is more generally the situation facing NBs. The results reported here support this contention. In two product categories, a higher quality variant of an NB was evaluated less favourably when a lower quality variant of the same NB also appeared in the assortment compared to when the higher quality variant was featured without the lower quality variant. The two variants of the NB “attracted” one another when they appeared together.

In a sense, the brand equity at the parent brand level is like a heavy gravitational field that prevents up-market or down-market variants of that brand from escaping its pull. This is likely to be more of a challenge for the typical NB compared to the typical SB. The tactic for overcoming the gravitation pull of a strong NB is to invest heavily in developing the sub-brands so they evoke more than just price/quality points along the brand continuum. As the multiple sub-brands begin acquiring unique associations of their own, they create repulsion effects between one another to offset the attraction effect of their shared parent brand.

By contrast, the brand gravity model has a rather straightforward prediction for the typical SB. Because the shared parent brand evokes few if any product-relevant associations, it exerts little gravitational pull on its multiple price/quality point variants. Hence, the net effect of including two variants of the same SB in a choice is a “repulsion” effect driven by the different price/quality points of the two sub-brands. In essence, the repulsion effect of the differing sub-brands is stronger than the attraction effect of the shared SB parent (Palmeira & Thomas, 2011).

The failure to observe a repulsion effect in this study may be due to the rather limited choice sets in which the SBs appeared. Repulsion effects for multiple variants of the same SB may require the presence of multiple NBs in the same choice set, as would be the case on actual supermarket shelves.

5. Limitations of research design

The inability to detect the effects predicted by H_{1a} , and for one of the two product categories H_{4b} , may be due to:

- i) Over-emphasis on ensuring the ecological validity of our research study at the expense of theoretical contribution, especially in terms of ‘real’ assortments of NBs and SBs in the choice sets; and
- ii) Over-reliance on the price dimension to explain variances in quality perceptions.

To address the first issue, the choice sets in Study 2 will be simplified to include either one or two products to capture the essential choice set manipulation of whether the brand variants are featured together versus alone. To provide a direct assessment of the relative influence of brand associations and price perceptions for predicting quality judgements of NBs versus SBs, a free continued association task will be included for each of the target brands. These refinements to the research design of Study 2 will be discussed in the next Chapter.

Chapter 5 – Study 2 – Method, Results & Conclusions

1.0 Introduction

The specific purposes of this Chapter are two-fold:

1.1 To outline the method by which the eight hypotheses inherent to the ‘brand gravity’ model will be tested (refer to Method section below). Also, how compared to Study 1: a) the choice sets have been simplified to include either one or two products, displayed ‘alone’ or ‘paired’ rather than an assortment of multiple SBs and NBs; and b) a free continued brand association task has been added for each of the focal store brands (SBs) or national brands (NBs) within each display to examine how the display format influences whether the parent brand or the sub-brand becomes the focus of attention in evaluating the focal brand.

1. 2. To present an analysis and contrast of the key results centred on repeated measures MANOVAs for the two dependent variables (i.e., perceived price/quality and the brand association valence index).

2.0 Method

2.1 Design

The laboratory experiment involved a 2 x (brand type) x 2 (price point) x 2 (display) x 4 x (product category) mixed-factor design with brand type, price point, and display as between-subjects factors and product category as the within-subjects factor. The brand type was either SB or NB, the price point of the focal brand was either higher or lower (i.e., designated H or L), and the focal brand was displayed either ‘alone’ or ‘paired’ with the brand variant at the other price point. The four product categories were coffees (instant), ice creams, tissues (facial), and toothpastes, as depicted in Table 5.1.

Table 5.1 – Study 2 - Experimental Design (conditions)

Condition	Brand Type	Price Point	Display Format	Coffees	Ice Creams	Tissues	Toothpastes
1	SB	Low	Alone	SBL	SBL	SBL	SBL
2	SB	High	Alone	SBH	SBH	SBH	SBH
3	SB	Low	Paired	SBL/SBH	SBL/SBH	SBL/SBH	SBL/SBH
4	SB	High	Paired	SBH/SBL	SBH/SBL	SBH/SBL	SBH/SBL
5	NB	Low	Alone	NBL	NBL	NBL	NBL
6	NB	High	Alone	NBH	NBH	NBH	NBH
7	NB	Low	Paired	NBL/NBH	NBL/NBH	NBL/NBH	NBL/NBH
8	NB	High	Paired	NBH/NBL	NBH/NBL	NBH/NBL	NBH/NBL

Also note that within each of the ‘paired’ displays (i.e., 3, 4, 7, 8 in Table 5.1) the first SB or NB was the focal brand item for each product category. So in Condition 1 the focal brand was the lower price point store brand (SBL) featured alone, whereas in Condition 3 the same brand was evaluated, this time featured next to its higher price point variant (SBH). In the paired display conditions, respondents were prompted to answer questions about the ‘other’ brand as well so as to prevent any hypothesis guessing, and more generally, to stop them from wondering why the second brand was present.

The eight following specific ‘brand gravity’ research hypotheses were tested for SBs (H_{1a} - H_{2b}) and for NBs (H_{3a} - H_{4b}) in this major study:

H_{1a} : A lower quality variant of a SB will be evaluated more favourably when featured alone compared to when it is featured alongside a higher quality variant of the same SB.

H_{1b} : A higher quality variant of a SB will be evaluated more favourably when featured alongside a lower quality variant of the same SB compared to when it is featured alone.

H_{2a} : A higher quality variant of a SB will be evaluated more favourably than a lower quality variant of the same SB when they are featured together in the same assortment.

H_{2b}: There will be little or no difference in the evaluation of a higher quality variant of a SB and a lower quality variant of the same SB when each is featured alone.

H_{3a}: A higher quality variant of a NB will be evaluated more favourably when featured alone compared to when it is featured alongside a lower quality variant of the same NB.

H_{3b}: A lower quality variant of a NB will be evaluated more favourably when it is featured alongside a higher quality variant of the same NB compared to when it is featured alone.

H_{4a}: A higher quality variant of a NB will be evaluated more favourably than a lower quality variant of the same NB when they are each featured alone.

H_{4b}: There will be little or no difference in the evaluations of a higher quality variant and a lower quality variant of the same NB when they are featured together in the same assortment.

The ‘brand gravity’ model hypothesises ‘repulsion’ effects between a SBH and a SBL if **H_{1a} - H_{2b}** are supported, as depicted in Figure 5.1

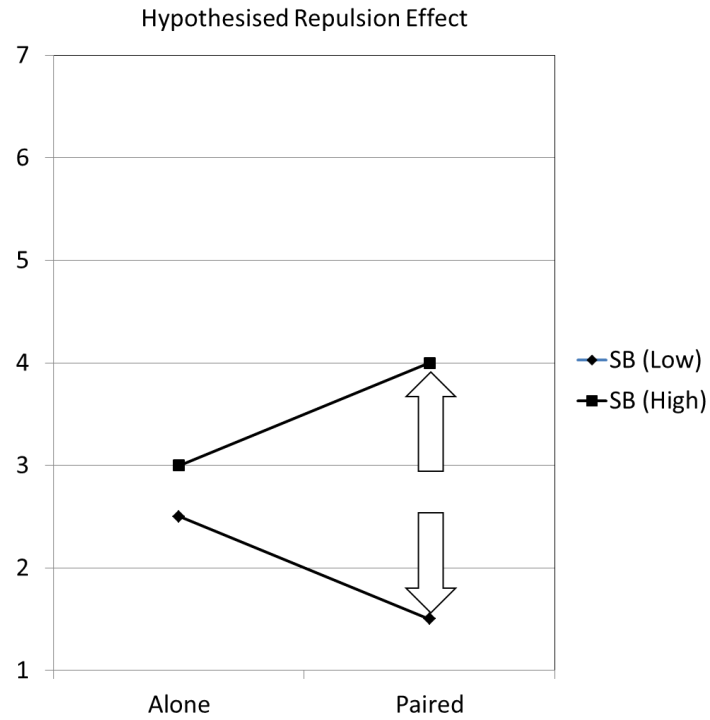


Figure 5.1: Hypothesised ‘Repulsion’ Effects for SBs

While the model hypothesises ‘attraction’ effects between NBH and NBL if H_{3a} - H_{4b} are supported, as depicted in Figure 5.2.

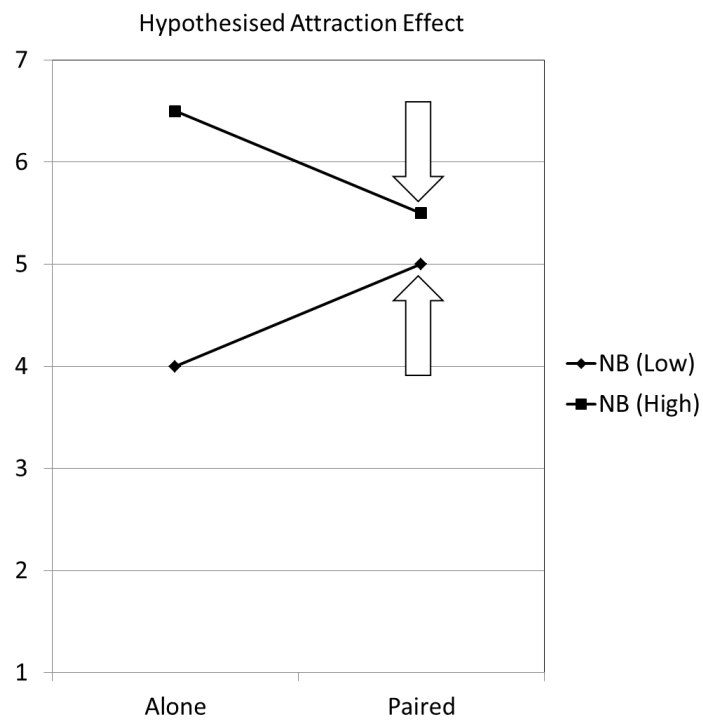


Figure 5.2: Hypothesised ‘Attraction’ Effects for NBs

2.2 Sample and procedure

Three hundred and twenty participants were recruited via a consumer panel, using the main screening criterion that they had to be the principal grocery shopper for their household. The experiment was completed online at their convenience during a two-week period wherein they could log-on using an assigned username and password. The initial screen instructed participants that they would be examining “some displays of items within various grocery product categories” in order to “answer some specific questions”. They were next shown one of eight displays involving photos of either four (‘alone’) or eight (‘paired’) packages of brands centred across the screen.

For the same stimulus commonality and consistency reasons as Study 1, photos of *real* packages were favoured over linguistic or logo prompts. Likewise *actual* unit price percentage differences were used to classify brand variants of each of the SBs and NBs into tiers (refer Appendix I for complete details).

All eight displays of the four product categories included the same one or two SBs (i.e., SBL, SBH) and NBs (i.e., NBL, NBH) from the two major supermarket chains, Coles, and Woolworths. Participants evaluated all four product categories within the same experimental condition in order to eliminate hypothesis guessing as to why some brands were featured alone and others were featured next to line extension variants. Table 5.2 details the specific variants of the SBs and NBs that were displayed ‘alone’ or ‘paired’.

Table 5.2 – SB and NB Variant Details by Product Category

<u>Variants</u>	<u>Coffees</u>	<u>Ice Creams</u>	<u>Tissues</u>	<u>Toothpastes</u>
SBL	Coles <i>smartbuy</i>	Woolworths <i>homebrand</i>	Woolworths	Coles <i>smartbuy</i>
SBH	Coles <i>Gold</i>	Woolworths <i>Select</i>	Woolworths <i>Select</i>	Coles <i>Total Care</i>
NBL	Nescafe <i>Blend</i>	Bulla <i>Real Dairy</i>	Sorbent <i>Everyday</i>	Colgate <i>Multi-Cavity</i>
NBH	Nescafe <i>Gold</i>	Bulla <i>Creamy Classics</i>	Sorbent <i>Aloe Vera</i>	Colgate <i>Total</i>

Participants provided price and quality ratings for both brands in the paired conditions, but listed brand associations only for the focal brand in the paired condition. Both measures were collected for the focal brand when it was featured alone.

2.3 Independent variables

2.3.1 – Between-subjects factors

a) Price point

Participants evaluated either a lower or a higher price point line extension of the same parent brand. For example, *smartbuy* (lower) or *Gold* (higher) instant coffee for whom Coles is the parent brand, likewise *Real Dairy* (lower) or *Creamy Classics* (higher) ice cream for whom the parent brand is Bulla.

b) Brand type

Participants evaluated either SBs or NBs within each product category. For instance 4 x SBHs in an ‘alone’ display comprising Coles *Total Care* toothpaste, Woolworths *Select* ice cream, Coles *Gold* instant coffee, and Woolworths *Select* facial tissues. Alternatively, 4 x NBLs and NBHs in a ‘paired’ display comprising Bulla’s *Real Dairy* and *Creamy Classics*, Colgate’s *Multi-Cavity Protection* and *Total*, Sorbent’s *Everday* and *Aloe Vera*, and Nescafe’s *Blend 43* and *Gold* variants.

c) Display

The focal brand was either featured alone or next to its vertical line extension brand variant. For instance, an SB display of four brand items with the lower quality brand variants Woolworths *homebrand* ice cream and tissues, Coles *smartbuy* coffee and toothpaste.

2.3.2 – Within-subjects factor

a) Product category

The brand type, price point, and display manipulations were presented within four product categories in order to create stimulus replicates for each of the key hypotheses. Two examples of ‘paired’ displays are shown in Figures 5.3 and 5.4. In the first ‘paired’ display example (i.e., Condition 3), the focal brand/s are the SBLs, while in the other example the NBLs (i.e., Condition 7) are the focal brand/s, across each of the evenly rotated product categories.

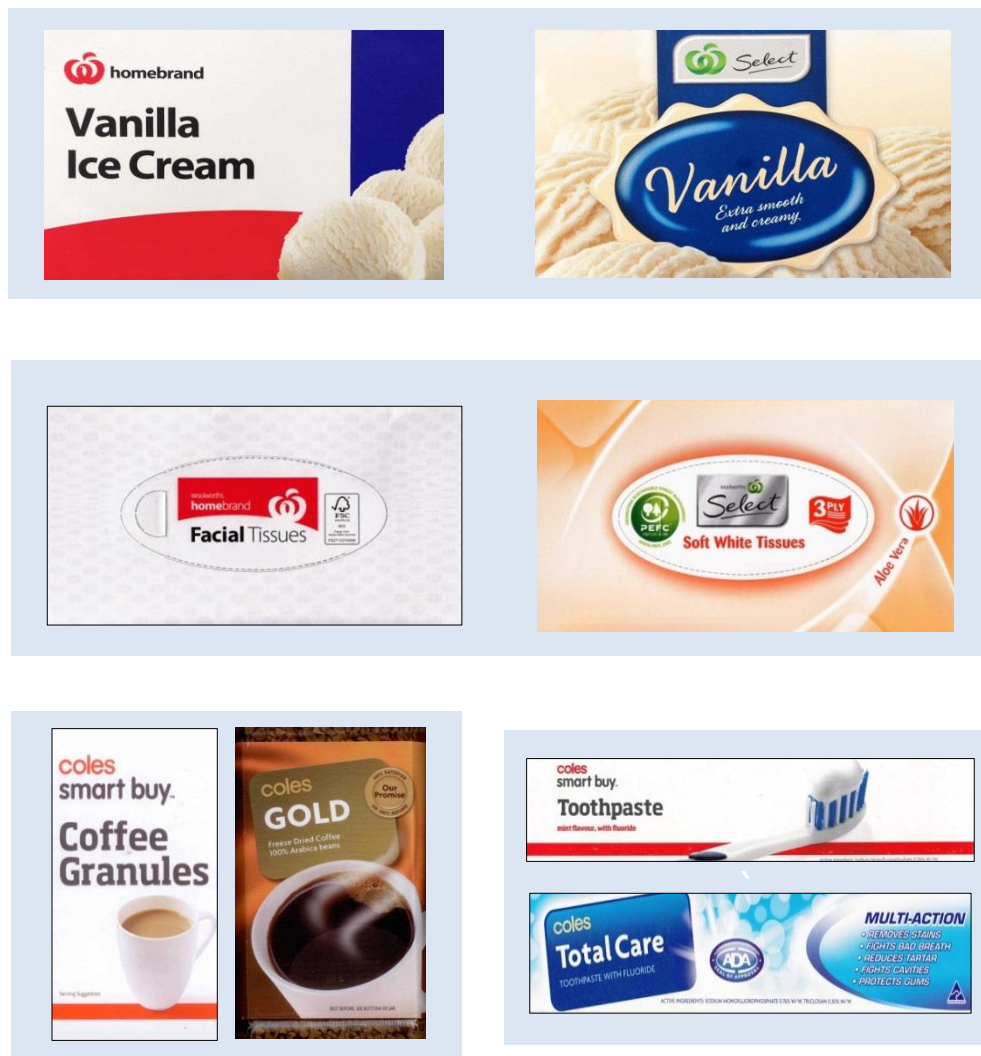


Figure 5.3: Condition 3 (SBLs as the focal brand/s for each product category)

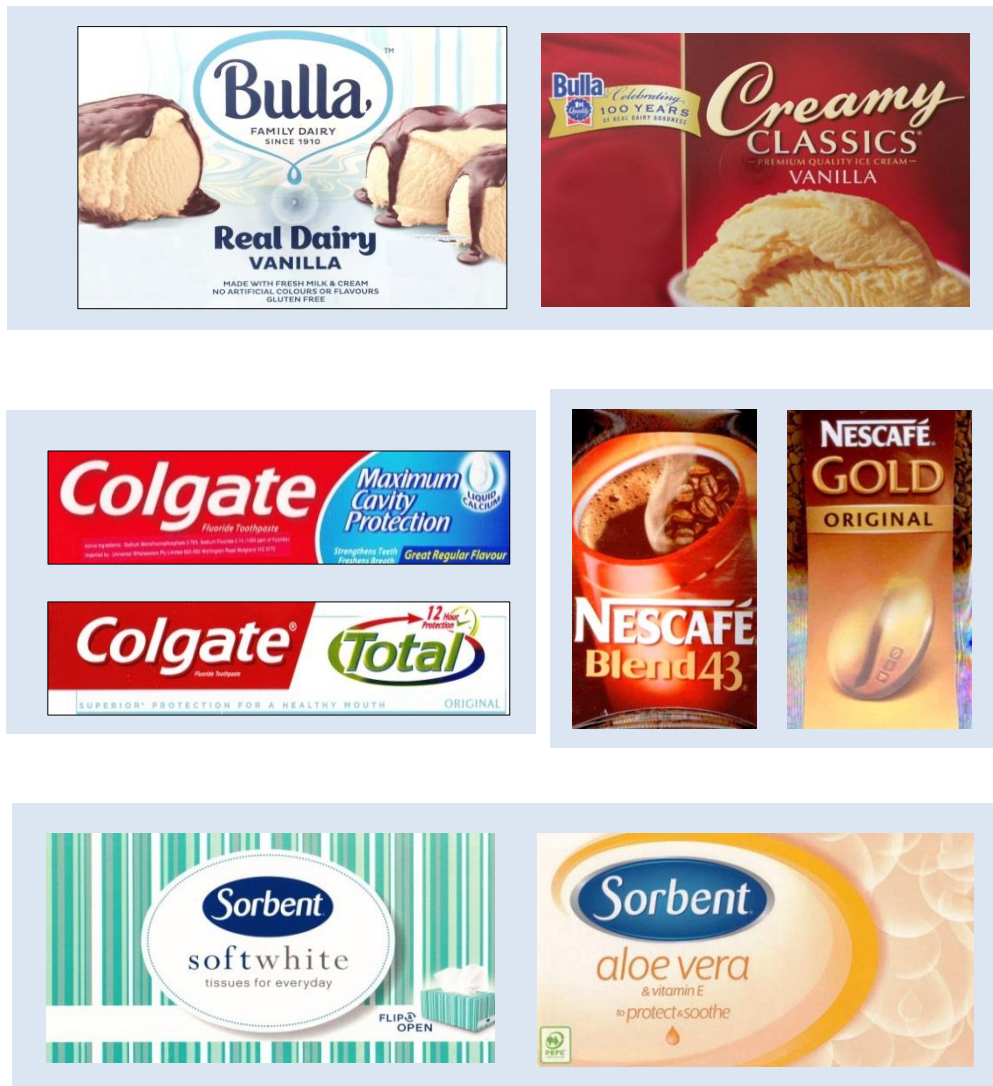


Figure 5.4: Condition 7 (NBLs as the focal brand/s for each product category)

2.4 Dependent variables

2.4.1 - Perceived price

Participants were first asked, “On a 7-point scale from 1 (lowest) to 7 (highest), would you please rate the price of each product item included in the display?” Photos of the package for the product item/s were featured in a column to the left of the screen, and on the right side of each one an array of 7 horizontal circles appeared, labelled 1 through 7 in order from left to right. For each item/s, participants moved their cursor over the appropriate circle and clicked, filling in the blank circle. When participants had rated each product item/s, they advanced to the next screen.

2.4.2 Perceived quality

Participants were then asked “On a 7-point scale from 1 (lowest) to 7 (highest), would you please rate the quality of each product item included in the display?” using the same response format, as for perceived price. The above price and quality 7-point Likert scales were identical in approach to those used in Study 1, when similarly exploring consumer perceptions of the various product items.

Exploratory factor analysis revealed that for each brand perceived price and perceived quality loaded on the same factor. Eigenvalues for Factor 1 (i.e., 1st factor) were > 1 for the four products (1.71_{coffees}, 1.62_{ice creams}, 1.66_{tissues}, 1.74_{toothpastes}). The eigenvalues for Factor 2 (2nd factor) were < 1 for the four products (0.29_{coffees}, 0.38_{ice creams}, 0.34_{tissues}, 0.26_{toothpastes}). For Factor 1, factor loadings were in the .90 – .93 range, and communalities in the .81 – .87 range, for the various target brands. Hence, a single *P/Q* factor was created by using the average of the two responses as the measure, similar to what occurred in Study 1.

2.4.3 Free associations

For each focal brand, participants were finally asked on an open-ended basis, “When you stop and think about this product item what comes to mind? In the next 60 seconds would you please list below as many of your thoughts as you can.” Right beneath this question, eight complete lines were allowed for participants to fill in. Frequencies of the free associations were first calculated then positive, negative or neutral ratings applied to each association to create a composite measure of net valence (i.e., net favourability) for each brand item. The importance of valence of association has been well documented (Keller, 1993; Dacin & Smith, 1994) while the rating of free associations for their valence has been used by other researchers (Krishnan, 1996; Rahman, 2007).

Associations judged to be positive were given a rating of +1.0, neutrals were rated 0.01, and those judged to be negative were rated -1.0. Two brand marketing experts (including the Thesis author) undertook the task of independently rating all of the brand associations, initially recording a 92% to 95% level of agreement. After joint review, some minor differences in the neutral ratings were resolved, thereby reaching complete agreement. Full details of the brand valence frequencies by association type (positive, neutral, negative) are presented in Table 5.3 (refer below).

Coffee products as-a-whole and SBLs in particular were least favourably evaluated, while ice creams as-a-whole (notably both NBs), the tissues NBL, and the NBHs for coffees and toothpastes were most favourably evaluated. For Nescafe *Gold* (a NBH), examples of three respondents’ string of free associations are: positive – ‘*morning/wake-up, smooth, satisfying, drink hot or cold, beautiful, enjoyable, can’t do without, last drink at night, lovely over conversation*’; negative – ‘*instant coffee, not my choice, bad flavour, expensive, trying to make instant coffee better, ground beans nicer*’; and neutral: ‘*beans, taste, hot, strong, smooth roast, granular, brown, gold*’. Examples of a string of three respondents’ free

associations for Bulla *Creamy Classics* (a NBH) are: positive – ‘*real tasting, original, family favourite, thick and creamy, expensive/worth it, been around since I was a kid, delicious*’; negative: ‘*not local brand, lesser quality*’; and neutral – ‘*vanilla, sweet, dessert, been in business a long time, red background distracts from picture, chocolate topping*’ (refer Appendix 2 for coding details of all sixteen brand items).

Table 5.3 – Brand Item Valence ‘Frequencies’ by Association Type.

<u>Category/Brand Variant</u>	<u>Positive</u>	<u>Neutral</u>	<u>Negative</u>
<u>Coffees</u>	<u>#</u>	<u>#</u>	<u>#</u>
Coles <i>smartbuy</i>	60	12	226
Coles <i>Gold</i>	147	11	103
Nescafe <i>Blend 43</i>	219	32	46
Nescafe <i>Gold</i>	221	33	30
<u>Ice Creams</u>			
Woolworths <i>homebrand</i>	104	60	139
Woolworths <i>Select</i>	215	36	30
Bulla <i>Real Dairy</i>	266	31	5
Bulla <i>Creamy Classics</i>	267	37	1
<u>Tissues</u>			
Woolworths <i>homebrand</i>	106	25	157
Woolworths <i>Select</i>	202	15	62
Sorbent <i>Everyday</i>	245	17	15
Sorbent <i>Aloe Vera</i>	220	39	11
<u>Toothpastes</u>			
Coles <i>smartbuy</i>	65	39	177
Coles <i>Total Care</i>	158	42	52
Colgate <i>Multi-Cavity Protection</i>	241	28	11
Colgate <i>Total</i>	281	19	11

Net valences for each brand variant were summated to create a brand association valence for each of the four product categories (i.e., BAVs 1 to 4), then combined to create the second factor, a *BAV* that measures all brands. Although average frequencies of associations are quite similar (range from 3.48 - 3.69), the net valence averages vary considerably (range from 0.76 to 2.14) by product type (refer Table 5.4). In aggregate, coffee products were least favourably evaluated, ice creams most favourably, with tissues and toothpastes on par.

Table 5.4 – Summary BAV Details by Product Category

<u>Category</u>	<u>Free Associations Ave.</u>	<u>Net Valence Ave.</u>	
Coffees (instant)	3.56	0.76	BAV1
Ice creams	3.69	2.14	BAV2
Tissues (facial)	3.48	1.67	BAV3
Toothpastes	3.51	1.55	BAV4
<u>Average:</u>	<u>3.56</u>	<u>1.53</u>	

3.0 Results analysis

3.1 Testing the eight hypotheses

To test the eight hypotheses, key analyses centred on repeated measures MANOVAs, one with *P/Q* as the dependent variable and one with *BAV* as the dependent variable, as each respondent completed each measure for multiple products. For any significant model effects F-stats and p-stats are reported, main effects first, then two-way interactions, and then any three-way interaction (if significant). After which the univariate results were examined in order to better specify the patterns of mean differences.

3.2 Results of the P/Q analyses

3.2.1 – Multivariate results – All brands

The significant main effects ($p < .0001$) were product ($F [3,933] = 14.58$), price point ($F [1,311] = 71.69$), and brand type ($F [1,311] = 290.30$). Although trivial, these results suggest that some of the four product categories are seen to be better than others, higher price point variants are evaluated differently to lower price point variants, likewise SBs are evaluated differently to NBs.

Significant two-way interactions ($p < .0001$) were observed for product x brand type ($F [3,933] = 7.39$), as well as price point x brand type ($F [1,311] = 18.77$). These results suggest that mean differences between SBs and NBs are larger for some products than for

others, and mean differences between higher and lower price points depend upon whether they are SBs or NBs.

A significant two-way interaction of price point x display format ($F [1,311] = 11.37, p = .0008$) suggests that mean differences between higher and lower price point variants depend on whether they are displayed together versus alone. While a significant three-way interaction for product x price x brand type ($F [3,933] = 3.66, p = .0122$) suggests that mean differences between higher versus lower priced SBs and NBs are larger for some product categories than for others.

No other effects in the model were significant.

3.2.2 – Univariate results – All brands

3.2.2 - a) For coffee products, significant main effects ($p < .0001$) were price point ($F [1,311] = 45.41$), $M = 3.30$ versus $M = 4.21$, for lower versus higher price points, and brand type ($F [1,311] = 148.69$), $M = 2.93$ versus $M = 4.57$, for SBs versus NBs.

For the significant two-way interaction of price point x brand type ($F [1,311] = 11.49, p = 0.0008$), the mean difference between the ‘high’ and ‘low’ price points is greater for SBs ($3.61 - 2.26 = 1.35$) than for NBs ($4.80 - 4.35 = 0.45$). While for the significant two-way interaction of price point x display format ($F [1,311] = 13.46, p < .0003$), the mean difference between lower and higher price point variants is larger when the two brand variants are paired rather than displayed alone regardless of whether they are SBs ($M_{\text{paired}} = 3.12$ versus $M_{\text{alone}} = 3.48$) or NBs ($M_{\text{paired}} = 4.53$ versus $M_{\text{alone}} = 3.89$), suggesting ‘repulsion’ effects for both brand types. No other effects in the model were significant.

The same basic pattern is largely reflected in the main effects and interaction results for the other three product categories, each of which now follows.

3.2.2 – b) For ice creams, significant main effects ($p < .0001$) were price point ($F [1,311] = 47.07$), $M = 3.70$ versus $M = 4.49$, for lower versus higher price points, and brand type ($F [1,311] = 178.65$), $M = 3.32$ versus $M = 4.86$, for SBs versus NBs.

For the significant two-way interaction ($p < .0001$) of price point x brand type ($F [1,311] = 30.27$), the mean difference between the ‘high’ and low’ price points is greater for SBs ($4.04 - 2.62 = 1.42$) than for NBs ($4.94 - 4.79 = 0.15$). While for the significant two-way interaction of price point x display type ($F [1,311] = 4.54$, $p = 0.03$), the mean difference between lower and higher price point variants is larger when the two brand variants are paired rather than displayed alone, regardless of whether they are SBs ($M_{\text{paired}} = 3.63$ versus $M_{\text{alone}} = 3.77$) or NBs ($M_{\text{paired}} = 4.67$ versus $M_{\text{alone}} = 4.32$), suggesting ‘repulsion’ effects for both brand types. No other effects in the model were significant.

3.2.2 – c) For tissues, significant main effects ($p < .0001$) were price point ($F [1,311] = 62.34$), $M = 3.36$ versus $M = 4.31$, for lower versus higher price points, and brand type ($F [1,311] = 194.46$), $M = 2.99$ versus $M = 4.67$, for SBs versus NBs.

For the significant two-way interaction of price point x brand type ($F [1,311] = 5.50$, $p = 0.0197$), the mean difference between the ‘high’ and low’ price points is greater for SBs ($3.61 - 2.37 = 1.24$) than for NBs ($5.01 - 4.34 = 0.67$). While for the significant two-way interaction of price point x display type ($F [1,311] = 9.43$, $p = 0.0023$), the mean difference between lower and higher price point variants is larger when the two brand variants are paired rather than displayed alone regardless of whether they are SBs ($M_{\text{paired}} = 3.11$ versus $M_{\text{alone}} = 3.60$) or NBs ($M_{\text{paired}} = 4.44$ versus $M_{\text{alone}} = 4.18$), suggesting ‘repulsion’ effects for both brand types. No other effects in the model were significant.

3.2.2 – d) For toothpastes, significant main effects ($p < .0001$) were price point ($F [1,311] = 46.09$), $M = 3.47$ versus $M = 4.24$, for lower versus higher price points, and brand type ($F [1,311] = 316.05$), $M = 2.84$ versus $M = 4.86$, for SBs versus NBs.

For the significant two-way interaction of price point x brand type ($F [1,311] = 11.07$, $p = 0.0010$) the mean difference between the ‘high’ and low’ price points is greater for SBs ($3.42 - 2.27 = 1.15$) than for NBs ($5.06 - 4.67 = 0.39$). While for the significant two-way interaction of price point x display format ($F [1,311] = 4.96$, $p = 0.03$), the mean difference between lower and higher price point variants is larger when the two brand variants are paired versus alone regardless of whether they are SBs ($M_{\text{paired}} = 3.32$ versus $M_{\text{alone}} = 3.61$) or NBs ($M_{\text{paired}} = 4.36$ versus $M_{\text{alone}} = 4.13$), suggesting ‘repulsion’ effects for both brand types. No other effects in the model were significant.

In order to more deeply understand whether and in what way ‘attraction’ or ‘repulsion’ effects might occur for SBs and NBs the overall dataset was split by brand type. The brand gravity model hypothesises ‘repulsion’ effects for SBs ($H_{1a} - H_{2b}$) and ‘attraction’ effects for NBs ($H_{3a} - H_{4b}$).

3.2.3 – Multivariate results – SBs only

Significant main effects ($p < .0001$) were product type ($F [3,465] = 16.15$), and price point ($F [1,155] = 62.55$). These results suggest that some of the four products were seen to be better than others, and higher price point brand variants are evaluated differently to lower price point ones.

While the significant two-way interaction of price point x display format ($F (1,155) = 7.10$, $p = 0.0085$) suggests that mean differences between higher versus lower price point variants of the same brand depend upon whether the brands are displayed alone or together.

No other effects in the model were significant.

3.2.4 – Univariate results – SBs only

3.2.4 - a) For coffee products, the significant main effect ($p < .0001$) was price point ($F [1,155] = 46.02$), $M = 2.26$ versus $M = 3.61$, for lower versus higher price points.

As shown in Table 5.5 below, for the significant two-way interaction of price point x display format ($F [1,155] = 4.72$, $p = 0.03$), the difference between the means of SBHs versus SBLs is greater when they were displayed together (i.e., $3.86 - 2.06 = 1.80$) compared to when they are displayed alone (i.e., $3.37 - 2.45 = 0.92$).

3.2.4 – b) For ice cream products, the significant main effect ($p < .0001$) was price point ($F [1,155] = 64.05$), $M = 2.61$ versus $M = 4.04$, lower versus higher price points.

As shown in Table 5.5 below, for the significant two-way interaction of price point x display format ($F [1,155] = 4.97$, $p = 0.03$), the difference between the means of higher versus lower price point SBs is greater when displayed together (i.e., $4.18 - 2.36 = 1.82$) compared to when they are displayed alone (i.e., $3.90 - 2.87 = 1.03$).

Table 5.5 – Summary of SBs Mean Differences – ‘Paired’ v’s ‘Alone’

	<u>Paired</u>			<u>Alone</u>		
	<u>SBH</u>	<u>SBL</u>	<u>Mean</u>	<u>SBH</u>	<u>SBL</u>	<u>Mean</u>
	(Mean)	(Mean)	<u>Difference</u>	(Mean)	(Mean)	<u>Difference</u>
	<u>a</u>	<u>b</u>	<u>a - b</u>	<u>c</u>	<u>d</u>	<u>c - d</u>
Coffees	3.86	2.06	1.80	3.37	2.45	0.92
Ice Creams	4.18	2.36	1.82	3.90	2.87	1.03
Tissues	3.69	1.97	1.72	3.52	2.77	0.75
Toothpastes	3.53	1.95	1.58	3.12	2.59	0.53

The same basic pattern as for ice creams (which differs from coffees), is reflected in the main effects and interaction results for the other two product categories, each of which now follows.

3.2.4 – c) For tissue products, the significant main effect ($p < .0001$) was price point ($F [1,155] = 42.86$), $M = 2.37$ versus $M = 3.61$, for lower versus higher price points.

As shown in Table 5.5 above, for the significant two-way interaction of price point x display format ($F [1,155] = 6.59, p = 0.01$), the difference between the means of higher versus lower price point SBs is greater when displayed together (i.e., $3.69 - 1.97 = 1.72$) compared to when they are displayed alone (i.e., $3.52 - 2.77 = 0.75$).

3.2.5 – d) For toothpaste products, the significant main effect ($p < .0001$) was price point ($F [1,155] = 40.52$), $M = 2.27$ versus $M = 3.42$, for lower versus higher price points.

As shown in Table 5.5 above, for the significant two-way interaction of price point x display format ($F [1,511] = 5.54, p = 0.02$), the difference between the means of higher versus lower price point SBs is greater when displayed together (i.e., $3.53 - 1.95 = 1.58$) compared to when they are displayed alone (i.e., $3.12 - 2.59 = 0.53$).

Overall, these results reveal that the ‘repulsion’ effects between lower and higher price point SB variants as predicted by the brand gravity model are apparent. As depicted below (Figures 5.5 to 5.8), the effect of price point is larger when the display format is ‘paired’ compared to when it is ‘alone’. Hence, price point differences for variants of the same SB are magnified when they are featured together compared to when they are featured alone.

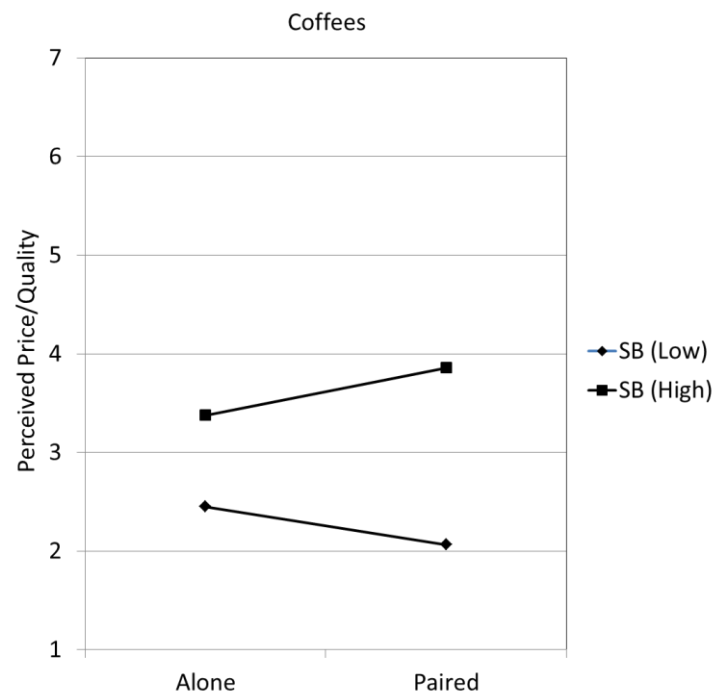


Figure 5.5: SB Coffees ‘Repulsion’ Effects

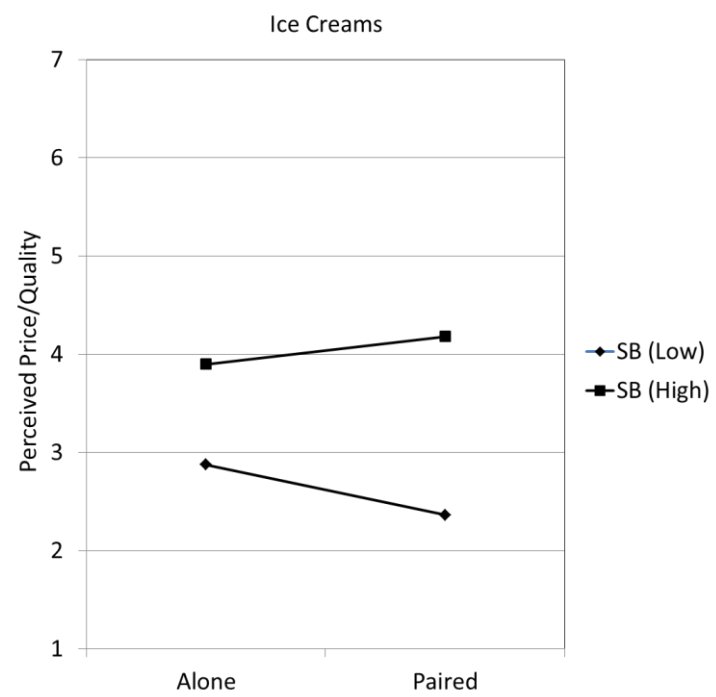


Figure 5.6: SB Ice Creams ‘Repulsion’ Effects

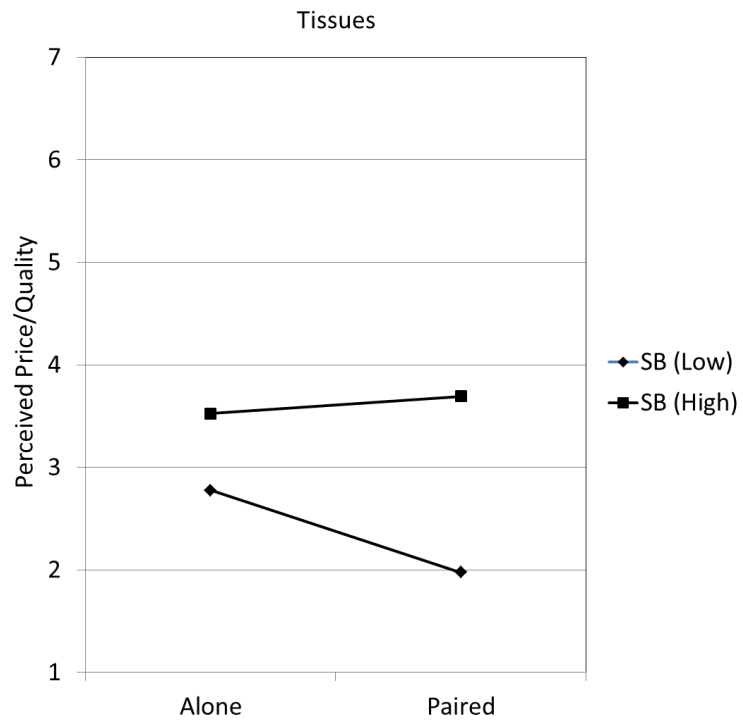


Figure 5.7: SB Tissues ‘Repulsion’ Effects

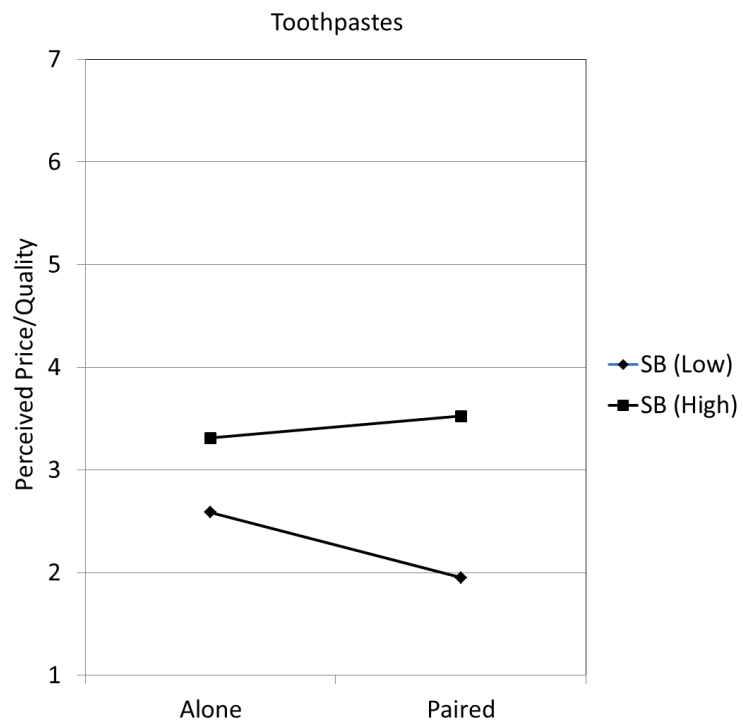


Figure 5.8: SB Toothpastes ‘Repulsion’ Effects

The dataset was again split to further examine the simple main effect of display format to see if higher price point SBs were helped and lower price point SBs hurt by being ‘paired’ versus featured ‘alone’. The ‘repulsion’ effects can operate upwards, downwards, or in both directions, but the ‘eye ball’ test suggests that it is mainly low price point SBs that were evaluated less favourably when ‘paired’ with a higher price point SB.

3.2.5 – Multivariate & Univariate results – Lower SBs only

The significant main effect was display type ($F [1,78] = 6.97, p = 0.01$), indicating a significant overall ‘repulsion’ effect. To differing degrees all products predict ‘repulsion’ effects, with SBLs evaluated more negatively when they were featured with their respective SBH compared to when they are featured alone. As predicted by the brand gravity model and specifically H_{1a} , they were repelled downward by the higher price point brand variant (refer Table 5.6 below).

Table 5.6 – Lower SB Mean Differences – ‘Alone’ v’s ‘Paired’

		<u>Alone</u>	<u>Paired</u>	<u>Mean</u>
	<i>p</i> -value	Mean	Mean	<u>Difference</u>
		a	b	a - b
Coffees	0.1619	2.45	2.06	0.39
Ice Creams	0.0305	2.87	2.36	0.51
Tissues	0.0020	2.77	1.97	0.80
Toothpastes	0.0169	2.59	1.95	0.64

3.2.6 – Multivariate & Univariate results – Higher SBs only

There was no significant main effect for display format, nor were there significant mean differences for any of the four product categories.

In net, we can conclude from the set of results that the ‘repulsion’ effect for SBs is being driven more by lower price point SBs falling, rather than by higher price point SBs

rising (as shown in Table 5.7 below). A different outcome to what the brand gravity model had predicted, hence H_{1b} is not supported.

Table 5.7 – Higher SB Mean Differences – ‘Alone’ v’s ‘Paired’

		<u>Alone</u>	<u>Paired</u>	<u>Mean</u>
	<i>p</i> -value	Mean	Mean	<u>Difference</u>
		a	b	a - b
Coffees	0.1024	3.37	3.86	-0.49
Ice Creams	0.3017	3.90	4.18	-0.28
Tissues	0.5545	3.52	3.69	-0.17
Toothpastes	0.3960	3.31	3.52	-0.21

3.2.8 – Multivariate & Univariate results – Paired SBs only

Significant main effects ($p < .0001$) were product ($F [3,231] = 8.61$), and price point ($F [1,77] = 30.60$). These results suggest that some of the four product categories were seen to be better than others, and higher price point brand variants are evaluated more favourably than their lower price point brand variants when featured together in the same assortment.

As shown in Table 5.8, for all of the product categories there was a significant main effect of price point ($p < .0001$) with the mean for each SBH (from 3.69 – 4.33) consistently higher than that for its SBL counterpart (from 2.15 – 2.67). This result indicates a strong ‘repulsion’ effect between the two SBs, supporting H_{2a} within the brand gravity model.

Table 5.8 – Summary of SBs ‘Paired’ Only Results

			<u>SBH</u>	<u>SBL</u>	<u>Mean</u>
	<i>F</i> (df, df _{error})	<i>p</i> -value	Mean (SD)	Mean (SD)	<u>Difference</u>
			a	b	a - b
Coffees	19.40 (1,77)	< .0001	3.90 (1.67)	2.30 (1.56)	1.60
Ice Creams	24.97 (1,77)	< .0001	4.33 (1.36)	2.67 (1.57)	1.66
Tissues	27.20 (1,77)	< .0001	3.85 (1.50)	2.20 (1.30)	1.65
Toothpastes	26.71 (1,77)	< .0001	3.69 (1.40)	2.15 (1.25)	1.54

3.2.8 – Multivariate & Univariate results – Sole SBs only

Significant main effects ($p < .0001$) were product ($F [3,234] = 9.07$), and price point ($F [1,78] = 21.09$). These results suggest that some of the four product categories were seen

to be better than others, and differences in perceived price/quality when each SB variant is featured alone.

As shown in Table 5.9, for all of the product categories there was a significant main effect of price point with the mean for each SBH (from 3.50 – 4.17) consistently higher than that for its SBL counterpart (2.37 – 3.15). This result does not support H_{2b} which hypothesises that when displayed ‘alone’ in an assortment there would be little or no difference between the evaluation of SBL and SBH products.

Table 5.9 – Summary of ‘Sole’ SBs Only Results

			<u>SBH</u>	<u>SBL</u>	<u>Mean</u>
	$F(df, df_{error})$	p -value	Mean (SD)	Mean (SD)	<u>Difference</u>
			a	b	a - b
Coffees	15.75 (1,78)	0.0002	3.50 (1.28)	2.37 (1.25)	1.13
Ice Creams	15.34 (1,78)	0.0002	4.17 (1.26)	3.15 (1.07)	1.02
Tissues	8.64 (1,78)	0.0043	3.90 (1.35)	2.97 (1.46)	0.93
Toothpastes	12.91 (1,78)	0.0006	3.70 (0.99)	2.70 (1.45)	1.00

3.2.9 – Multivariate results – NBs only

The significant main effects were product ($F [3,468] = 6.55, p = 0.0002$), and price point ($F [1,156] = 12.31, p = 0.001$). These results suggest that some of the four product categories are seen to be better than others, and higher price variants are evaluated differently to lower price point variants.

The significant two-way interaction of product x price point ($F [3,468] = 3.44, p = 0.02$) suggests that the price point effect differs from one product category to another. While a three-way interaction of product x price point x display format ($F [3,468] = 3.69, p = 0.01$) suggests that the price point effect depends on specific combinations of product category and display format.

The significant two-way interaction of price point x display format ($F [1,156] = 4.26, p = 0.04$) suggests that, consistent with the brand gravity model, mean differences between

higher versus lower price point variants of the same brand depend upon whether the brands are displayed ‘alone’ or ‘paired’.

No other effects in the model were significant.

3.2.10 – Univariate results – NBs only

3.2.10 - a) For coffee products, the significant main effect was price point ($F [1,156] = 6.32, p = 0.01$), $M = 4.35$ versus $M = 4.80$, for lower versus higher price points.

As shown in Table 5.10, for the significant interaction of price point x display format ($F [1,156] = 9.44, p = 0.003$), the difference between the means of NBHs versus NBLs is greater when they are displayed together (i.e., $5.19 - 4.19 = 1.00$) compared to when they are displayed alone than ($4.41 - 4.51 = -0.10$).

Table 5.10 – Summary of NBs Mean Differences – ‘Paired’ v’s ‘Alone’

	<u>Paired</u>			<u>Alone</u>		
	<u>NBH</u>	<u>NBL</u>	<u>Mean</u>	<u>NBH</u>	<u>NBL</u>	<u>Mean</u>
	(Mean)	(Mean)	Difference	(Mean)	(Mean)	Difference
	<u>a</u>	<u>b</u>	<u>a - b</u>	<u>c</u>	<u>d</u>	<u>c - d</u>
Coffees	5.19	4.19	1.00	4.41	4.51	-0.10
Ice Creams	5.15	4.90	0.25	4.74	4.67	0.07
Tissues	5.17	4.25	0.92	4.84	4.42	0.42
Toothpastes	5.17	4.70	0.47	4.95	4.64	0.31

3.2.10 – b) For ice cream products, the significant main effect was display format ($F [1,156] = 4.75, p = 0.03$), $M = 4.71$ versus $M = 5.02$, when displayed ‘alone’ versus ‘paired’.

The absence of a price point main effect for ice creams and any possible ‘attraction’ effect is attributed to a lack of mean difference between the NBs to start with ($NBH_{\text{alone}} = 4.74$ versus $NBL_{\text{alone}} = 4.67$) thereby providing little scope for any further ‘attraction’ (as reported in Table 5.10).

3.2.10 – c) For tissue products, the significant main effect was price point ($F [1,156] = 19.76, p < .0001$), $M = 4.34$ versus $M = 5.01$, for lower versus higher price points, indicating that higher price point NBs were evaluated more favourably than lower price point ones (as reported in Table 5.10).

3.2.10 – d) For toothpastes the significant main effect was price point ($F [1,156] = 8.09, p < 0.005$), $M = 4.67$ versus $M = 5.06$, indicating that higher price point NBs were evaluated more favourably than lower price point ones (as reported in Table 5.10).

Overall these P/Q results (depicted in Figures 5.9 to 5.12 below) contradict the primary ‘attraction’ effects hypothesised by the brand gravity model. Rather the coffee NBs exhibit significant ‘repulsion’ effects when ‘paired’ versus ‘alone’. There are no significant display effects for the other three product categories. Interestingly, whether ‘alone’ or ‘paired’, the ice cream NB variants are strongly ‘attracted to one another throughout, with little or no difference between the NBH and NBL brands regardless of how they are displayed

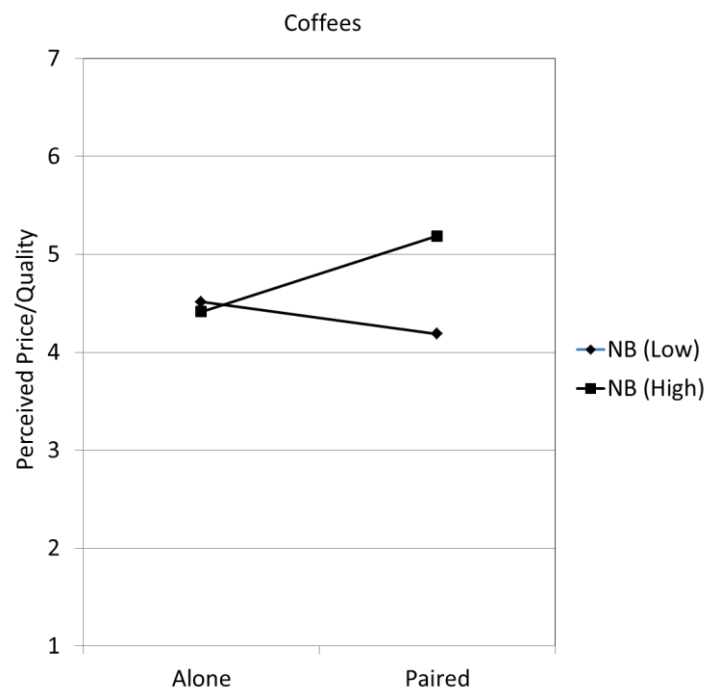


Figure 5.9: NB Coffees Results

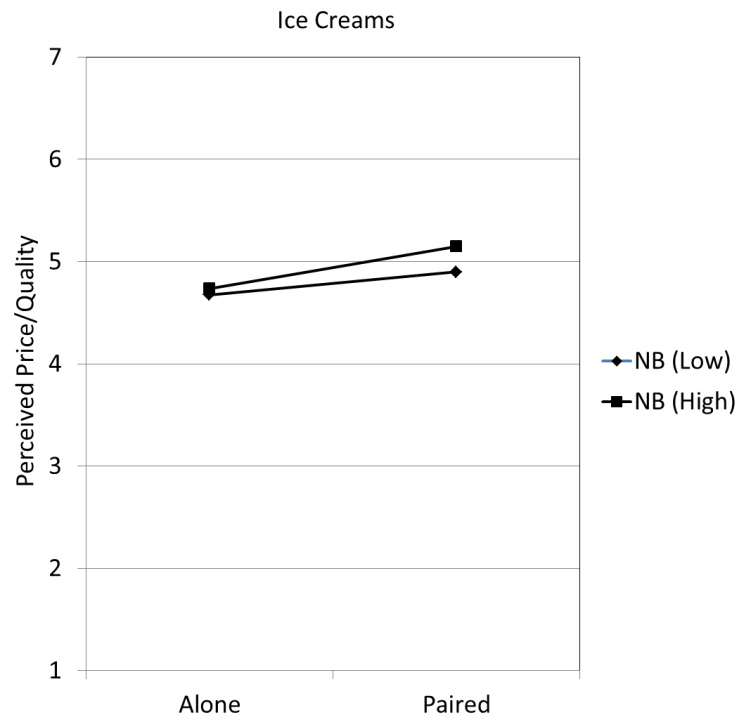


Figure 5.10: NB Ice Creams Results

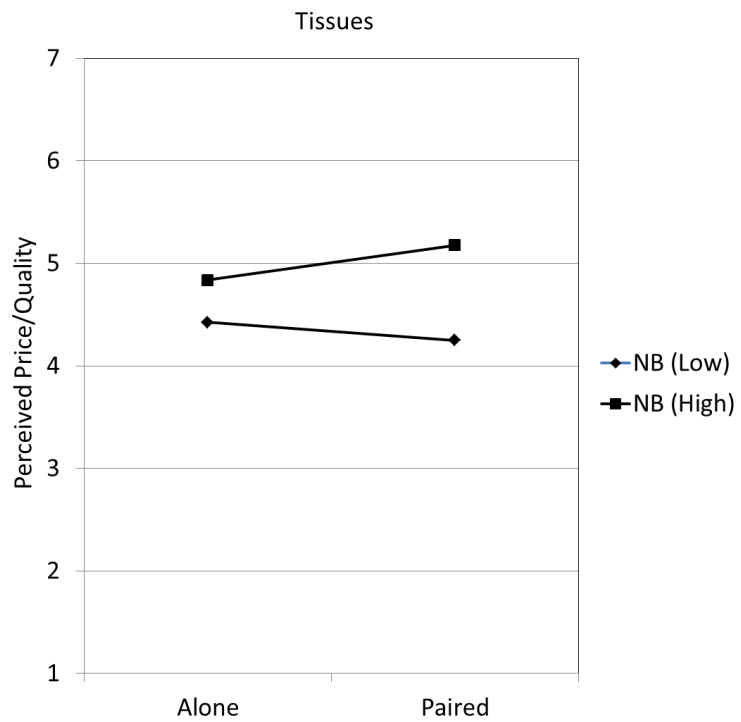


Figure 5.11: NB Tissues Results

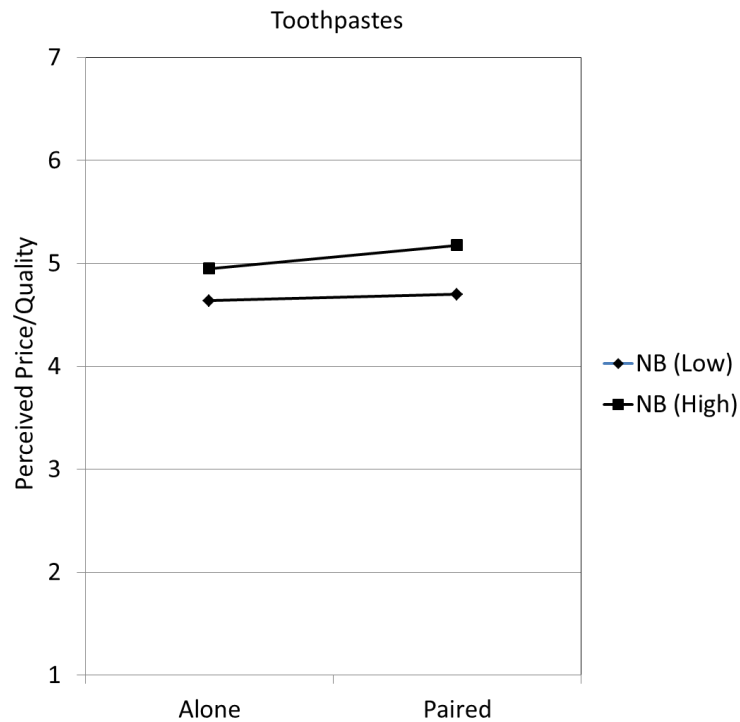


Figure 5.12: NB Toothpastes Results

The overall dataset was further split to examine simple main effects of display format. Does the display format affect high price point NBs, low price point NBs, or both, and are these differing NBs affected in the same or opposite direction/s?

3.2.11 – Multivariate & Univariate results – Lower NBs only

No main or interaction effects in the model were significant, lower price point NBs were not affected by display format. As such H_{3b} which predicted that a NBL would be more favourably evaluated when featured alongside its NBH sibling is not supported.

3.2.12 – Multivariate & Univariate results – Higher NBs only

The significant main effect was display type ($F [1,78] = 7.83, p = 0.01$), indicating a significant overall ‘repulsion’ effect of this independent variable on higher price point NBs.

3.2.12 – a) For coffees the significant main effect was display format ($F [1, 78] = 10.73, p = 0.0016$), $M = 4.41$ versus $M = 5.19$, ‘alone’ versus ‘paired’, suggesting higher price point NBs were evaluated more favourably when featured with their lower price point variants compared to when they were featured alone.

3.2.12 – b) There were no significant main or interaction effects for ice creams, tissues, or toothpastes.

No other effects in the model were significant. This means that the ‘repulsion’ effect observed for NBs is mainly due to higher price point NBs being evaluated more favourably when they are paired compared to when they are featured alone. However, this ‘repulsion’ effect was only observed for the overall multivariate effect and univariate effect for coffee products, the display format had little or no effect on NBHs in the other three product categories. Hence, H_{3a} , which posited that a higher quality variant of a NB will be evaluated more favourably when featured alone compared to when it is featured alongside a lower quality variant of the same NB, was not supported.

3.2.13 – Multivariate & Univariate results – Sole NBs only

The significant main effect was product type ($F [3,234] = 5.64, p = 0.001$) which suggests that some of the four products were seen to be better than others.

As shown in Table 5.11 below, there were no significant main or interaction effects for any of the product categories, directionally the mean for each NBH when featured on its own was quite similar (from -0.03 to 0.28) to that of its NBL counterpart.

Table 5.11 – Summary of ‘Sole’ NBs Only Results

			<u>NBH</u>	<u>NBL</u>	<u>Mean</u>
	$F(df, df_{error})$	p -value	Mean (SD)	Mean (SD)	<u>Difference</u>
			a	b	a - b
Coffees	0.02 (1,78)	0.8763	4.52 (1.43)	4.47 (1.43)	0.05
Ice Creams	0.01 (1,78)	0.9138	4.92 (0.89)	4.95 (1.15)	-0.03
Tissues	1.50 (1,78)	0.2244	4.95 (1.06)	4.67 (0.94)	0.28
Toothpastes	0.60 (1,78)	0.4428	5.12 (0.94)	4.95 (1.08)	0.17

This result is at odds with, hence does not support, **H_{4a}** which predicts that when ‘alone’ in an assortment a higher price point variant will be evaluated more favourably than a lower price point one.

3.2.14 – Multivariate & Univariate results – Paired NBs only

The significant main effect was product type ($F [3,234] = 6.92, p = 0.0002$) which suggests that some of the four product categories were seen to be better than others.

Although there were no significant main or interaction effects for any of the product categories, directionally there were sizeable differences between the means of the NBH and NBL variants for the coffee and tissue products when featured together (refer Table 5.12).

Table 5.12 – Summary of ‘Paired’ NBs Only Results

			<u>NBH</u>	<u>NBL</u>	<u>Mean</u>
	$F(df, df_{error})$	p -value	Mean (SD)	Mean (SD)	<u>Difference</u>
			a	b	a - b
Coffees	7.73 (1,78)	0.0068	5.10 (1.24)	4.22 (1.56)	0.88
Ice Creams	1.73 (1,78)	0.1926	5.30 (1.04)	4.97 (1.16)	0.33
Tissues	7.18 (1,78)	0.0090	5.42 (1.13)	4.70 (1.28)	0.72
Toothpastes	2.74 (1,78)	0.1019	5.45 (1.08)	5.02 (1.21)	0.43

Hence, the results do not support, **H_{4b}** which hypothesises that when ‘paired’ in an assortment there will be little or no difference between the evaluations of a higher quality variant and a lower quality variant of the same NB.

3.3 Results of the BAV analyses

3.3.1 – Multivariate results – All brands

The significant main effects ($p < .0001$) were price point ($F [1,312] = 29.35$), and brand type ($F [1,312] = 116.48$). These results suggest that higher price point variants are

evaluated differently to lower price point variants, likewise SBs are evaluated differently to NBs.

While the significant two-way interaction ($p < .0001$) of price point x brand type ($F [1,312] = 25.90$) suggests that mean differences between the higher and lower price points depend upon whether they are SBs or NBs.

No other effects in the model were significant.

3.3.2 – Univariate results – All brands

3.3.2 - a) For coffee products, significant main effects were price point ($F [1,312] = 10.60$, $p = 0.001$), $M = 0.13$ versus $M = 1.40$, for lower versus higher price points, and brand type ($F [1,312] = 62.97$, $p < .0001$), $M = -0.77$ versus $M = 4.57$, for SBs versus NBs.

For the significant two-way interaction of price point x brand type ($F [1,312] = 8.23$, $p = 0.004$), the mean difference between the ‘high’ and low’ price points is greater for SBs ($0.41 - [-1.96] = 2.37$) than for NBs ($2.38 - 2.23 = 0.15$).

The same basic pattern is reflected in the main effects and interaction results for the other three product categories, each of which now follows.

3.3.2 – b) For ice creams, significant main effects ($p < .0001$) were price point ($F [1,312] = 17.53$), $M = 1.48$ versus $M = 2.87$, for lower versus higher price points, and brand type ($F [1,312] = 44.43$), $M = 1.07$ versus $M = 3.28$, for SBs versus NBs.

For the significant two-way interaction ($p < .0001$) of price point x brand type ($F [1,312] = 19.82$), the mean difference between the ‘high’ and low’ price points is much greater for SBs ($2.50 - [-0.37] = 2.87$) than for NBs ($3.24 - 2.50 = 0.74$).

3.3.2 – c) For tissues, significant main effects were price point ($F [1,312] = 8.57$, $p = 0.0037$), $M = 1.13$ versus $M = 2.17$, for lower versus higher price points, and brand type ($F [1,312] = 39.22$, $p < .0001$), $M = 0.55$ versus $M = 2.75$, for SBs versus NBs.

For the significant two-way interaction of price point x brand type ($F [1,312] = 13.18$, $p = 0.0005$), the mean difference between the ‘high’ and low’ price points is much greater for SBs ($1.70 - [-0.61] = 2.31$) than for NBs ($2.63 - 2.88 = -0.25$).

3.3.2 – d) For toothpastes, significant main effects ($p < .0001$) were price point ($F [1,312] = 25.69$), $M = 0.71$ versus $M = 2.39$, for lower versus higher price points, and brand type ($F [1,312] = 92.62$), $M = -0.04$ versus $M = 3.15$, for SBs versus NBs.

For the significant two-way interaction of price point x brand type ($F [1,312] = 12.44$, $p = 0.0005$), the mean difference between the ‘high’ and low’ price points is much greater for SBs ($1.38 - [-1.47] = 2.85$) than for NBs ($3.40 - 2.89 = 0.51$).

As with the P/Q analyses, in order to more deeply understand whether and in what way ‘attraction’ or ‘repulsion’ effects might occur for SBs and NBs the overall BAV dataset was split by brand type. The brand gravity model hypothesises ‘repulsion’ effects for SBs ($H_{1a} - H_{2b}$) and ‘attraction’ effects for NBs ($H_{3a} - H_{4b}$).

3.3.3 – Multivariate results – SBs only

The only significant main effect ($p < .0001$) was price point ($F [1,156] = 50.16$), suggesting that higher price point variants are evaluated differently to lower price point variants.

No other effects in the model were significant.

3.3.4 – Univariate results – SBs only

3.3.4 - a) For coffee products, the significant main effect ($p < .0001$) was price point ($F [1,156] = 16.67$), $M = -1.96$ versus $M = 0.41$, for lower versus higher price points.

The same singular main effect pattern is reflected in the other three product categories, each of which now follows.

3.3.4 – b) For ice creams, the significant main effect ($p < .0001$) was price point ($F [1,156] = 26.67$), $M = -0.37$ versus $M = 2.50$, for lower versus higher price points.

3.3.4 – c) For tissues, the significant main effect was price point ($F [1,156] = 15.81$, $p = 0.0001$), $M = -0.61$ versus $M = 1.70$, for lower versus higher price points.

3.3.4 – d) For toothpastes, the significant main effect ($p < .0001$) was price point ($F (1,155) = 30.39$), $M = -1.47$ versus $M = 1.38$, for lower versus higher price points.

3.3.5 – *Multivariate & Univariate results – Lower SBs only*

No effects in the model were significant for lower price point SBs. Hence H_{1a} which predicts that a lower quality variant of a SB will be evaluated more favourably when featured alone compared to when it is featured alongside a higher quality variant of the same SB is not supported.

3.3.6 – *Multivariate & Univariate results – Higher SBs only*

No effects in the model were significant for these SBs. Hence H_{1b} which predicts that a higher quality variant of a SB will be evaluated more favourably when featured alongside a lower quality variant of the same SB compared to when it is featured alone is not supported.

3.3.7 – *Multivariate & Univariate results – Paired SBs only*

Significant main effects were product type ($F [3,231] = 8.61$, $p = 0.0339$), and price point ($F [1,77] = 30.60$, $p < .0001$). These results suggest that some of the four product categories were seen to be better than others, and higher price point brand variants are evaluated more favourably than their lower price point brand variants when featured together in the same assortment.

As shown in Table 5.13, for all products there was a significant main effect of price point with the mean for each SBH (ranging from 0.28 to 1.98) consistently higher than that

for its SBL counterpart (ranging from -0.39 to -1.62). This result indicates a ‘repulsion’ effect between the two SBs, supporting **H_{2a}** within the brand gravity model.

Table 5.13 – Summary of ‘Paired’ SBs Only Results

			<u>SBH</u>	<u>SBL</u>	<u>Mean</u>
	<i>F(df, df_{error})</i>	<i>p</i> -value	Mean (SD)	Mean (SD)	<u>Difference</u>
			a	b	a - b
Coffees	4.30 (1,78)	0.0414	0.28 (4.10)	-1.55 (3.76)	1.83
Ice Creams	10.19 (1,78)	0.0020	1.98 (2.97)	-0.39 (3.65)	2.37
Tissues	12.85 (1,78)	0.0006	1.58 (3.45)	-1.17 (3.40)	2.75
Toothpastes	14.87 (1,78)	0.0002	1.43 (3.45)	-1.62 (3.63)	3.05

3.3.8 – Multivariate & Univariate results – Sole SBs only

Significant main effects ($p < .0001$) were product type ($F [3,234] = 9.07$), and price point ($F [1,78] = 27.41$). These results suggest that some of the four product categories were seen to be better than others, and differences in perceived price/quality when each SB variant is featured alone.

As shown in Table 5.14, for all of the product categories the significant main effect was price point with the mean for each SBH (ranging from 0.55 to 3.03) consistently higher than that for its SBL counterpart (ranging from -0.05 to -2.37). This result does not support, **H_{2b}** which hypothesises that when displayed ‘alone’ in an assortment there would be little or no difference between the evaluation of SBL and SBH products.

Table 5.14 – Summary of ‘Sole’ SBs Only Results

			<u>SBH</u>	<u>SBL</u>	<u>Mean</u>
	<i>F(df, df_{error})</i>	<i>p</i> -value	Mean (SD)	Mean (SD)	<u>Difference</u>
			a	b	a - b
Coffees	14.78 (1,78)	0.0002	0.55 (3.36)	-2.37 (3.45)	2.92
Ice Creams	19.01 (1,78)	< .0001	3.03 (2.86)	-0.34 (3.96)	3.37
Tissues	4.60 (1,78)	0.0351	1.83 (3.73)	-0.05 (4.08)	1.88
Toothpastes	15.83 (1,78)	0.0002	1.33 (2.93)	-1.32 (3.02)	2.65

To enable these *BAV* results to be easily contrasted with those for the *P/Q* variable (refer Figures 5 to 8), simple graphical plots of the ‘alone’ versus ‘paired’ means for SBH and SBL have been depicted below (see Figures 5.13 to 5.16).

Overall, the *BAV* ‘repulsion’ effects imply that the higher price point brand variant got better and/or the lower price point variant got worse in the ‘paired’ condition. Although the pattern of these results was similar to the *P/Q* results for the tissues and toothpastes product categories, it was different for the coffees and ice creams product categories.

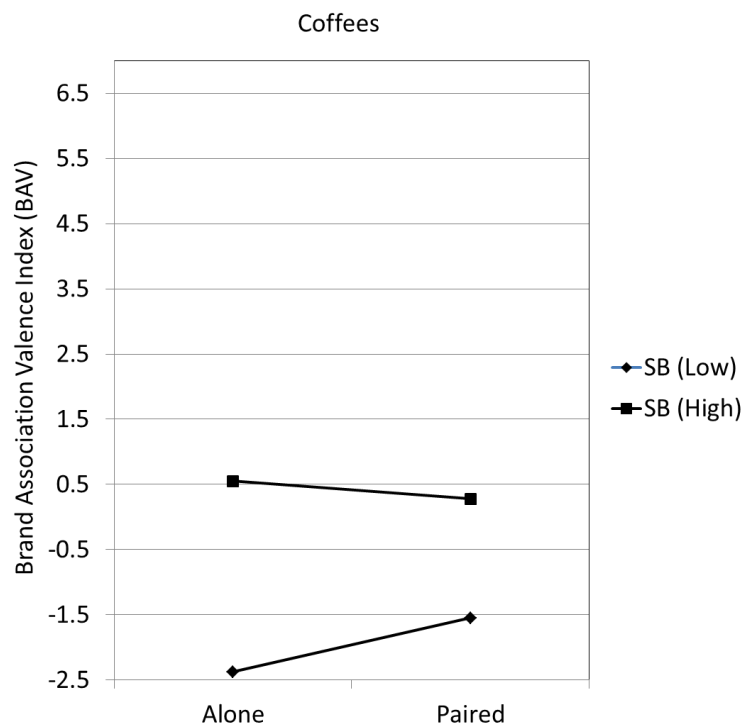


Figure 5.13: SB Coffees Results

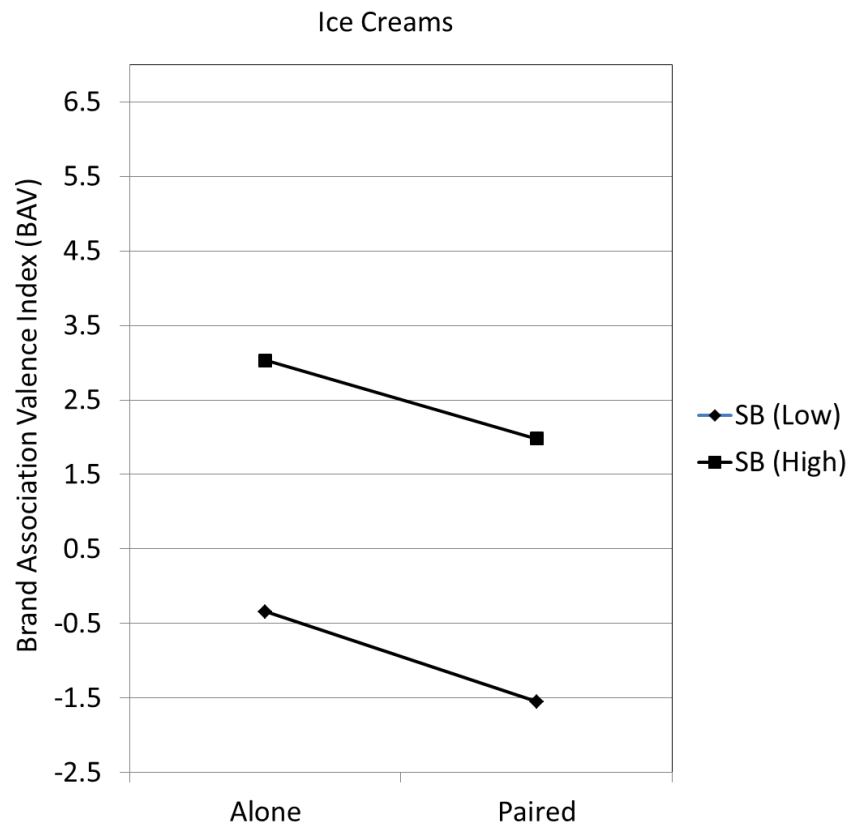


Figure 5.14: SB Ice Creams Results

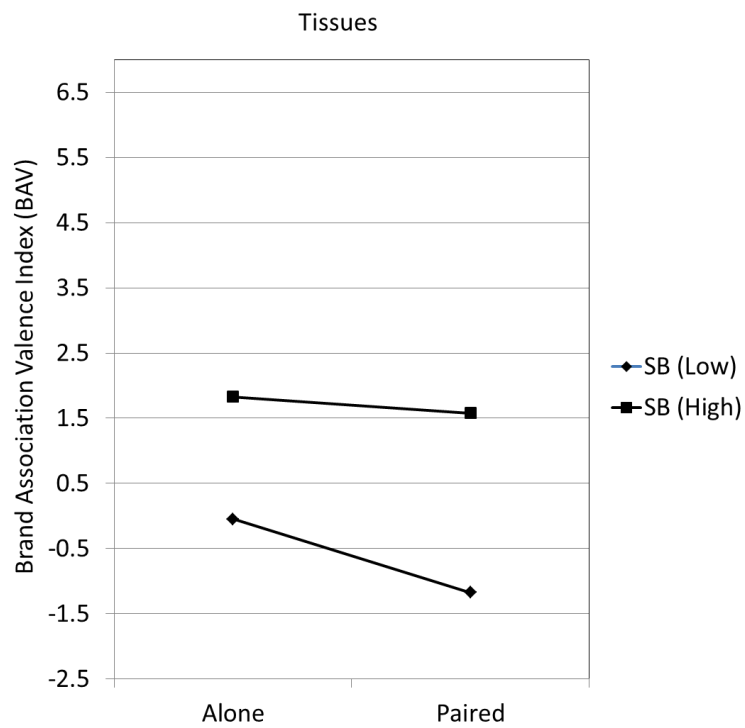


Figure 5.15: SB Tissues Results

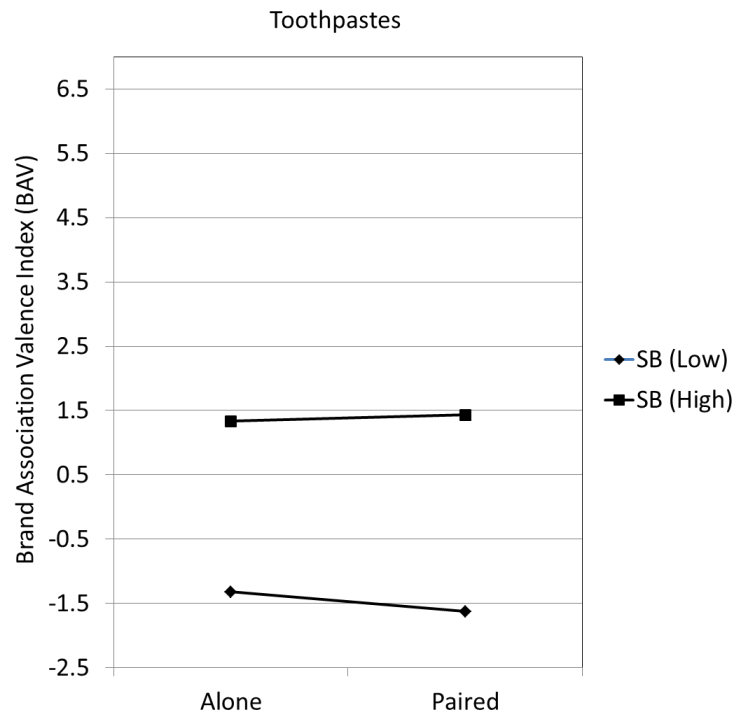


Figure 5.16: SB Toothpastes Results

Similar to the *P/Q* results, the *BAV* ‘repulsion’ effect for the tissue and toothpaste products was driven more by the lower price point SB falling further, rather than by the higher price point SB rising. In contrast to the *P/Q* ‘repulsion’ effect for coffee products, this category’s *BAV* results indicate an ‘attraction’ effect with the lower quality SB attracted upwards when ‘paired’ with the higher quality SB. While the *BAV* result for the SBH and SBL ice cream variants was quite unique, downshifting in parallel, when each variant was displayed ‘alone’ versus ‘paired’.

In net, although less convincing than the *P/Q* results for SB products, these *BAV* results also provide support for **H_{2a}** which hypothesises a ‘repulsion’ effect between the two SB variants when they are featured together. Consistent with the *P/Q* results, the *BAV* results do not support **H_{2b}** which hypothesises little or no difference between the SBL and the SBH will be evaluated more favourably when the two brand variants are featured alone. In contrast to this prediction, the price point effect was significant when each brand variant was featured by itself.

3.3.9 – Multivariate and Univariate results – NBs only

No main or interaction effects, even for price point, were significant in the model.

There appears to be a fairly obvious explanation for the failure to obtain any significant ‘attraction’ effects for NBs (i.e., support for H_{3a} or H_{3b}). As shown in Table 5.15, there are no price point differences between NBH and NBL to start with, hence no real space from which any ‘attraction’ between these two NB variants might occur.

Table 5.15 – Summary of NBs Only Results

			<u>NBH</u>	<u>NBL</u>	<u>Mean</u>
	$F(df, df_{error})$	p -value	Mean (SD)	Mean (SD)	<u>Difference</u>
			a	b	a - b
Coffees	0.09 (3,156)	0.7702	2.38 (3.23)	2.23 (3.25)	0.15
Ice Creams	0.05 (3,156)	0.8227	3.24 (2.64)	3.33 (2.29)	-0.09
Tissues	0.39 (3,156)	0.5355	2.63 (2.44)	2.88 (2.57)	-0.25
Toothpastes	1.51 (3,156)	0.2204	3.40 (2.71)	2.89 (2.51)	0.51

3.3.10 – Multivariate and Univariate results – Sole NBs only

The significant main effect was product type ($F [3,234] = 2.82, p = 0.04$) which suggests that some of the four products were seen to be better than others. There were no significant main or interaction effects for any of the product categories.

As shown in Table 5.16, across the four product categories, there is no consistent pattern in the mean differences between the NBH and NBL variants when each is displayed alone in an assortment. Evaluation of the ice cream variants is almost identical; the NBL variants for coffees and tissues are evaluated a little more favourably than their NBH siblings. Only for toothpastes is the NBH variant evaluated more favourably than its NBL counterpart.

Table 5.16 – Summary of ‘Sole’ NBs Only Results

			<u>NBH</u>	<u>NBL</u>	<u>Mean</u>
	$F(df, df_{error})$	p -value	Mean (SD)	Mean (SD)	<u>Difference</u>
			a	b	a - b
Coffees	0.29 (1,78)	0.5916	2.23 (3.26)	2.63 (3.38)	-0.40
Ice Creams	0.03 (1,78)	0.8580	3.40 (2.64)	3.30 (2.21)	0.10
Tissues	0.16 (1,78)	0.6918	2.68 (2.81)	2.93 (2.79)	-0.25
Toothpastes	0.94 (1,78)	0.3351	3.38 (2.73)	2.73 (2.92)	0.65

In net, these results generally do not support, H_{4a} which hypothesises that when ‘alone’ in an assortment a higher price point variant will be evaluated more favourably than a lower price point variant of the same brand.

3.3.10 – Multivariate and Univariate results – Paired NBs only

The significant main effect was product type ($F [3,234] = 5.24, p = 0.0016$) which suggests that some of the four product categories were seen to be better than others. There were no significant main or interaction effects for any of the product categories.

Hence, the results do not support H_{4b} which predicts that when are they featured in the same assortment there will be little or no difference in the evaluations of a higher quality variant and a lower quality variant of the same NB.

To enable these *BAV* results to be easily contrasted with those for the *P/Q* dependent variable (refer Figures 5.9 to 5.12) simple graphical plots of the ‘alone’ versus ‘paired’ means for the NB variants for each of the four product categories have been depicted below (see Figures 5.17 to 5.20).

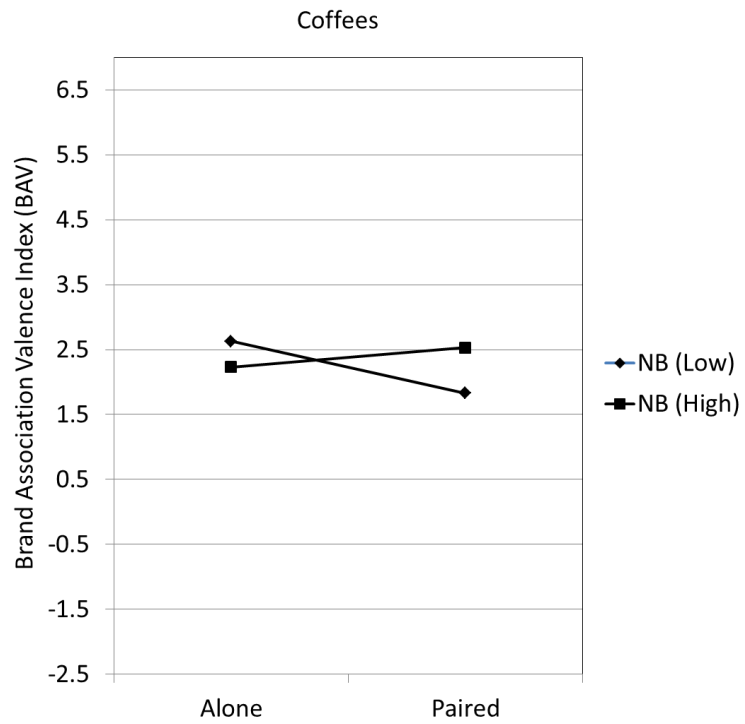


Figure 5.17: NB Coffees Results

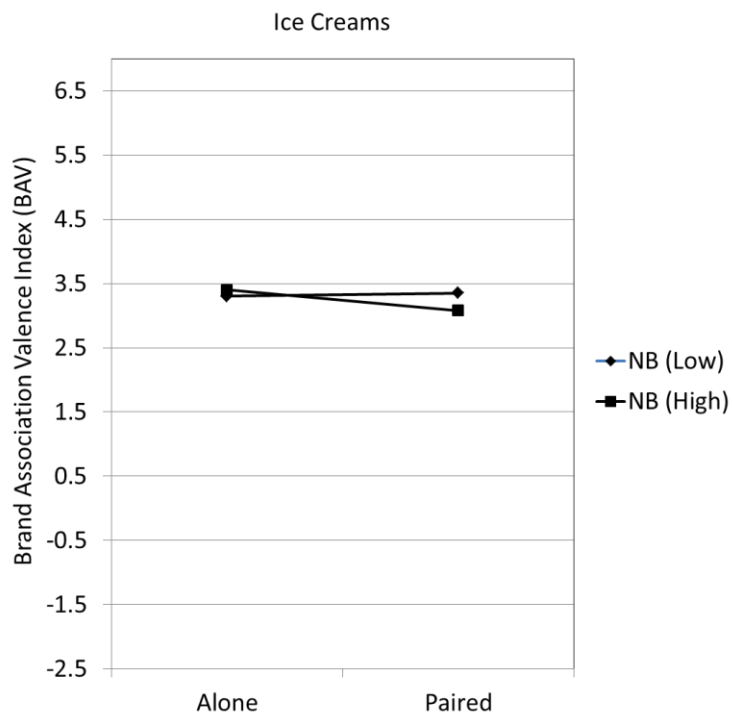


Figure 5.18: NB Ice Creams Results

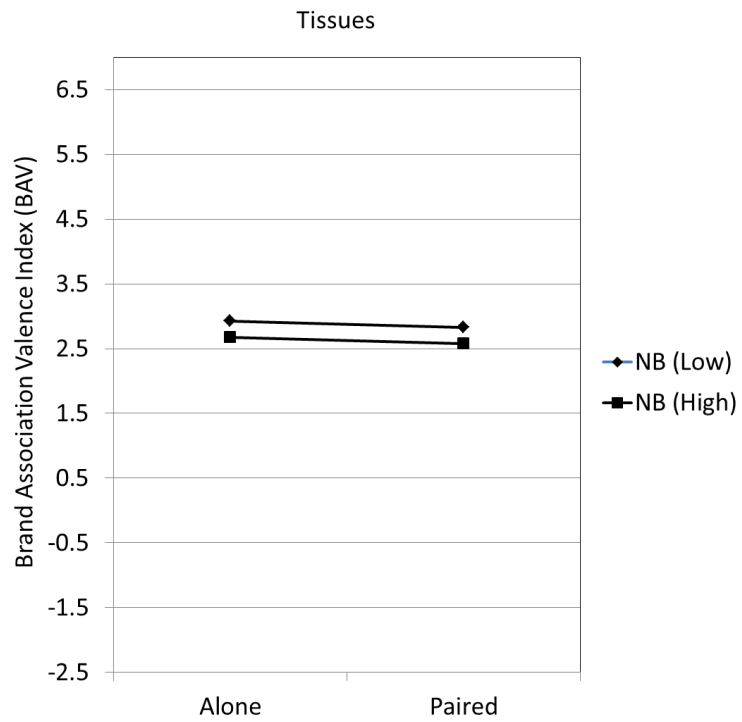


Figure 5.19: NB Tissues Results

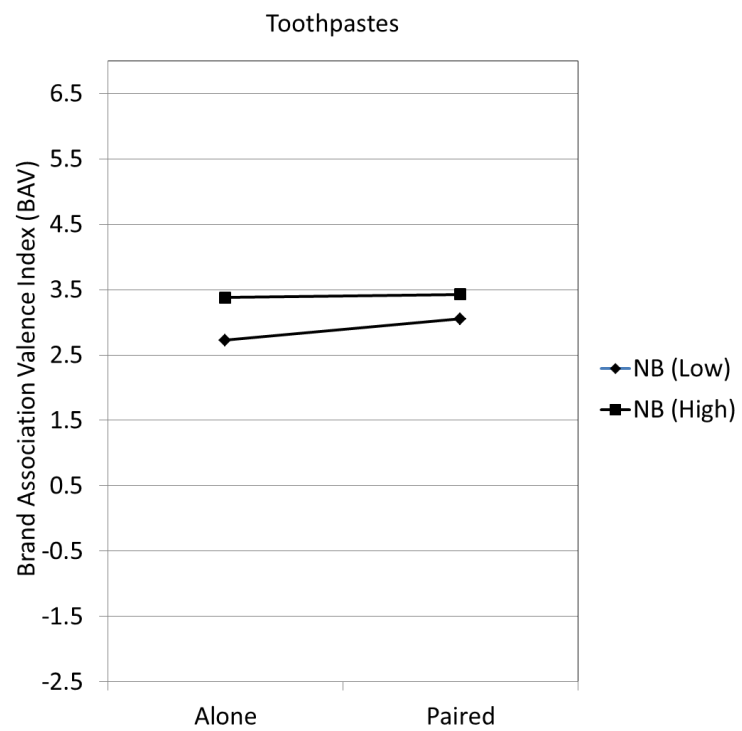


Figure 5.20: NB Toothpastes Results

Overall there is some encouraging evidence, albeit imperfect, from the *BAV* results that the NBL and NBH brand variants seem to be ‘attracted’ to one another regardless of the assortment in which they appear, compared to the ‘repulsion’ effects indicated by the *P/Q* results.

In general, the results for the *P/Q* measure produced more convincingly evidence of ‘repulsion’ effects, for both SBs and NBs; whereas the *BAV* results were more mixed, with little or no evidence of ‘repulsion’ effects, and only some indication of ‘attraction’ effects for NBs.

Chapter 6 – Overall Discussion, Conclusions & Implications

1.0 Introduction

The specific purposes of this Chapter are to: a) compare and discuss the outcomes of Study 1 versus Study 2; b) re-visit the essentials of the ‘brand gravity’ model; c) explain the key differences in results between the two studies and suggest method refinements for future research studies; d) managerial implications of the ‘brand gravity’ model for both retailers and manufacturers; and conclude with e) Limitations and future studies.

2.0 Comparing and discussing the outcomes of Study 1 v’s Study 2

For ease of comparison, the predicted outcomes of Study 1 (refer Chapter 4) have been simply captured in the following Table (6.1).

Table 6.1 – Summary of Hypotheses Outcomes – Study 1

<u>Brand Type</u>	<u>Hypothesised</u>	<u>Supported</u>	<u>Not Supported</u>
SBs	‘Repulsion’	H _{2a}	H _{1a}
NBs	‘Attraction’	H _{3a} , H _{4b} (partial)	H _{4b} (partial)

Results for the SBs were mixed, with SBHs ‘repulsed’ to a more favourable evaluation when featured alongside of SBLs compared to when they were featured alone, while SBLs were largely unaffected by whether they were displayed alone or alongside of SBHs. Hence H_{2a} was supported but H_{1a} was not.

In three out of four cases NBHs and NBLs were ‘attracted’ to one another whether featured together or alone, the exception being coffee products. As such, H_{3a} was fully supported and H_{4b} partially supported.

Additionally, the main drivers of these ‘repulsion’ or ‘attraction’ effects were attributed to the *P/Q* points of the two SB or NB brand variants, respectively.

In stark contrast, the overall results of Study 2 (re-capped in Table 6.2) indicate that comparable *P/Q* hypothesis outcomes achieved in Study 1 have largely been over-turned.

Table 6.2 – Summary of Hypotheses Outcomes – Study 2

<u>Factor/Brand</u>	<u>Hypothesised</u>	<u>Supported</u>	<u>Not Supported</u>
<i>P/Q</i> Factor			
SBs	‘Repulsion’	H _{1a} , H _{2a}	H _{1b} , H _{2b}
NBs	‘Attraction’	-	H _{3a} , H _{3b} , H _{4a} , H _{4b}
<i>BAV</i> Factor			
SBs	‘Repulsion’	H _{2a}	H _{1a} , H _{1b} , H _{2b}
NBs	‘Attraction’	-	H _{3a} , H _{3b} , H _{4a} , H _{4b}

Both SBs and NBs exhibited ‘repulsion’ effects. Across all four product categories for SBs, and all but ice cream products for NBs whereby both brand variants were ‘attracted’ (i.e., similarly rated) whether ‘paired’ or ‘alone’.

Although the *BAV* outcomes for SBs also recorded ‘repulsion’ effects, there were similarities and some notable differences with the *P/Q* outcomes for the various product categories. The functional categories (tissues, toothpastes) mirrored the *P/Q* pattern of the SBL falling further, without the SBH also rising further, to create the ‘repulsion’ effect. Although the ice cream brand variants also followed a similar *P/Q* ‘repulsion’ pattern, their *BAV* pattern was quite different with SBH and SBL downshifting in parallel. While for coffees the *BAV* ‘repulsion’ effect was the direct opposite of that for *P/Q*, a decreasing (for *BAV*) versus an increasing (for *P/Q*) effect, with SBL and SBH contributing to the results for both factors

However, the *BAV* results for NBs encouragingly suggested some ‘attraction’ (albeit imperfect) effects for three product categories (ice creams, tissues, toothpastes). While the ‘repulsion’ effect for the NBH and NBL coffees observed in the *BAV* results appeared to be weaker than that observed in the *P/Q* results.

The failure to convincingly observe ‘attraction’ effects for NBs at the *P/Q* and *BAV* levels in this second study may have been attributable to using a simpler, single brand type experimental design. Also the use of same-size ‘real pack’ stimuli may have negated the effects of the ‘absolute’ shelf price differences that actually exist between the two NB variants (ranging from +3% to +37% for NBHs relative to NBLs). Additionally, ‘attraction’ effects for multiple variants of the same NB may require the presence of multiple NBs in the same choice set, as would typically be the situation on actual supermarket shelves. By pairing only two NBs from the same parent it may have caused some people to focus more so on differences and less on similarities than might actually be the case when they are grocery shopping. Perhaps prompting a research participant to think: *‘If I am being asked to repeatedly rate and comment on these products, there must be more differences between them, than I would have previously thought?’*

Finally, increasing the product categories from two to four, between the two studies, enabled significant effects of the ‘brand gravity’ model and testing of the hypotheses to be more fully examined and contrasted. Furthermore, by collecting ‘free associations’, encapsulated in the *BAV* factor, the results’ analysis was extended beyond the price/quality dimensions and should provide some valuable insight as to how the ‘brand gravity’ model might be further refined.

3.0 Re-visiting the ‘Brand Gravity’ model

Brand gravity refers to the number of distinct product-relevant associations evoked by exposure to the brand. The phrase ‘distinct product-relevant associations’ is an important aspect of brand gravity. In order to contribute to a brand’s gravity, the associations that come to mind must be relevant for comparing and selecting alternatives from the specific product category in which that brand appears. SB associations are about the global retail brand (i.e., *Coles* or *Woolworths*), and hence do not have gravity within any product category, whereas NB associations are product category specific (e.g. *Nescafe* = coffee), and so do create brand gravity.

The fundamental prediction of the brand gravity model is that parallel effects will not hold for SBs and NBs when two variants of the same parent brand appear in an assortment with different price/quality points, as signalled by different sub-brands. As shown in Figure 6.1, in both cases the different sub-brands introduce unique price/quality associations that build a point of difference between the two variants. However, the amount of brand gravity at the parent brand level differs in the case of SBs versus NBs.

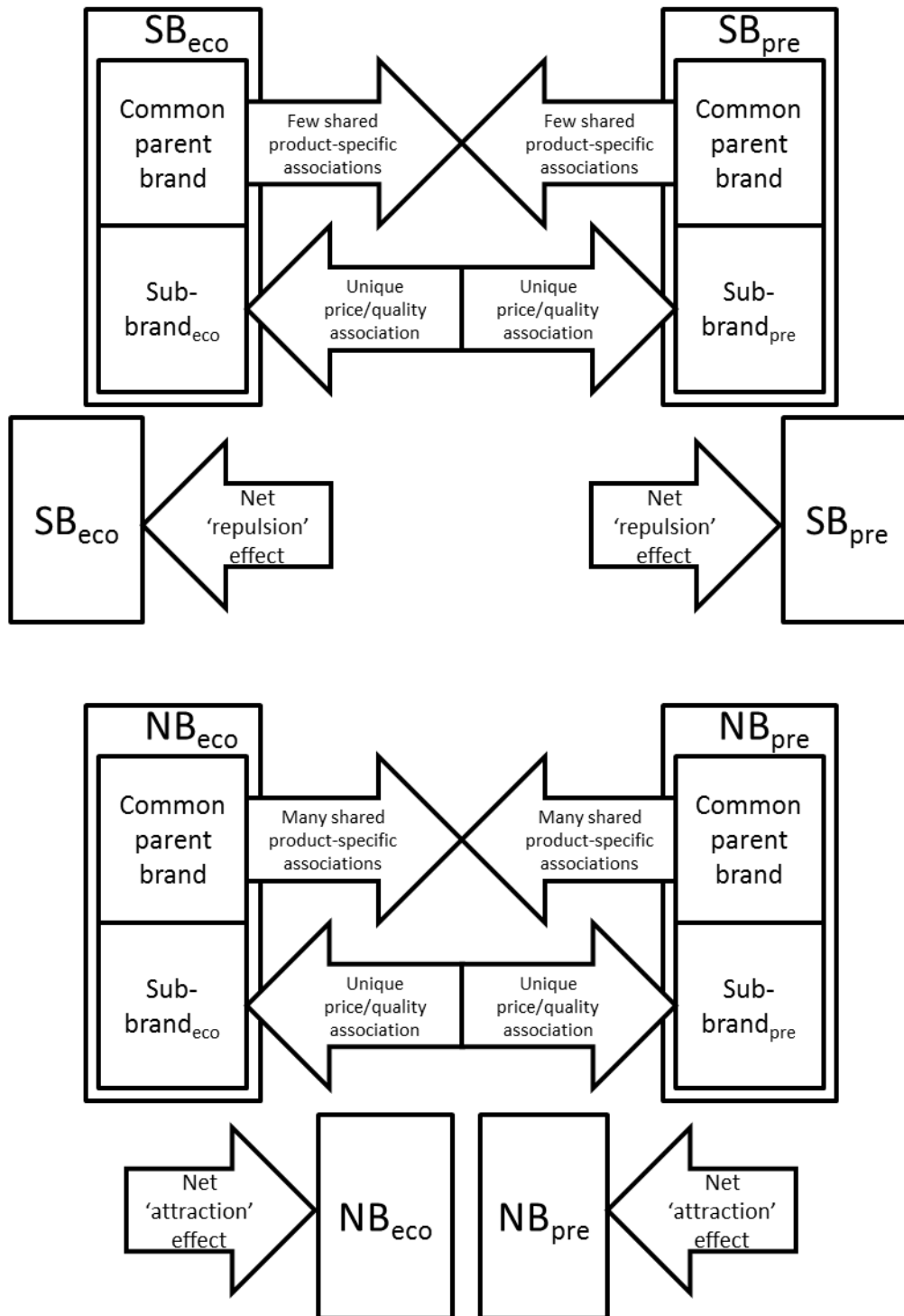


Figure 6.1: Brand Gravity Effects of Vertical Line Extensions for SBs versus NBs

As shown in the top panel, the SB evokes few if any product-relevant associations other than the general notion that SBs are usually of inferior quality to NBs. Hence, there is very little attraction between the two alternatives at the parent brand level, whereas the sub-brands convey a clear difference in price/quality point. In the case of two alternatives sharing the same SB, the net effect is that the economy positioned sub-brand and the premium positioned sub-brand will “repel” one another when both are featured in the same assortment (Palmeira & Thomas, 2011).

By contrast, two variants of the same NB, positioned at different price/quality points would not be expected to repel one another if featured together in the same assortment. As shown in the bottom panel of Figure 6.1, because the shared NB evokes a much wider array of product-relevant associations, the attraction effect at the parent brand level is much stronger than the repulsion effect at the sub-brand level. In short, the two variants of the same NB share a large number of product-relevant attributes relative to the unique price/quality points indicated by the sub-brand. Hence, the brand gravity model predicts that two variants of the same NB, positioned at different price/quality points, will “attract” one another if featured in the same assortment.

There are at least two underlying reasons why many of the product associations evoked by a SB variant will not be as relevant to a specific product category as those evoked by a NB variant. First, while major retailers spend millions of dollars to develop their global retail brand, they spend comparatively little within specific product categories bearing their private label brand on store shelves. By contrast, NBs have much higher promotional budgets in any given product category. Hence, NBs would be expected to elicit more product-relevant associations than SBs because more money has been spent to create these specific brand associations. This may be one of the reasons that SBs perform comparatively well in product

categories where promotional budgets of NBs are relatively low (Ailawadi & Keller, 2004); the gap in advertising spending, and hence brand gravity, is lower in these product categories.

Second, SBs like Coles *smartbuy* or Woolworths *Select* differ from most NBs in that they have been extended over numerous, largely unrelated, product categories. By contrast, many NBs are specific to a single product category, or a small number of closely related categories (Ailawadi & Keller, 2004). In general, brand associations are created and strengthened via a uniqueness principle. A brand associated with almost every product category in the store, as is often the case with SBs, has no unique link to any specific product attribute, and so will evoke few if any product-relevant associations in any given product category. By contrast, NBs have a much narrower focus, appearing in a single product category, or a small number of related categories. Hence, NBs have the ability to evoke product-relevant associations because they create more unique associations with specific product categories (Meyvis & Janiszewski, 2004).

4.0 Explaining key results differences between Study 1 and Study 2

4.1- Overall 'brand gravity' effects for SBs and for NBs.

Study 1 found no obvious evidence of 'repulsion' effects for SBs but 'attraction' effects for NBs. However, Study 2 found 'repulsion' effects for SBs, and to a lesser extent 'repulsion' not 'attraction' effects for NBs. So how did the method of each study compare and what differences might have contributed to these different research outcomes?

4.2 – Similarities and differences in the method of each study

Laboratory experiments for both studies were completed online with 'principal household grocery shopper' participants recruited via a consumer panel. Likewise, each participant rated perceived price and perceived quality in the same manner while viewing

photo displays of same-size packages of *real* SB and *real* NB variants within a number of product categories.

On average, each study took 12-14 minutes for a participant to complete.

Furthermore, all of the participants recruited for each study went from start to finish, there were no drop-outs. Completion of a ‘free association’ question for the focal brand/s in Study 2 offset the time and effort needed to evaluate a greater number of brands in Study 1.

Although two categories (tissues, toothpastes) were added in Study 2 to the coffee and ice cream products used in both studies, this was not felt to be detrimental rather beneficial to fuller testing of the various brand gravity hypotheses. However, there was a major difference in the assortments used in each study which potentially affected the research outcomes.

In Study 1, each assortment consisted of a mix of SBs and NBs. An assortment for coffee products consisted of six brand variants (i.e., 2 x SBs, 4 NBs) - SBR1, SBR2, NBP1, NBP2, NBR3, and NBP3. In this case hypothesised ‘attraction’ effects between NBR3 and NBP3 (i.e., Nescafe *43 Blend* and Nescafe *Gold*) were being tested. The assortment for ice cream products also consisted of six brand variants (i.e., 2 x NBs, 4 x SBs) – NBR1, NBR2, SBE1, SBE2, SBR3 and SBP3. This time hypothesised ‘repulsion’ effects between SBR3 and SBP3 (i.e., Coles and Coles *Finest*) were being tested.

In Study 2, the two main brand types were not mixed, an assortment either displayed one or two SBs, or alternatively, displayed one or two NBs. For example an assortment for coffee products had either a SBE1 or a SBR1, or both of these SBs, alternatively an assortment had either a NBR1 or a NBP1, or both of these NBs. When SB coffee products were tested for ‘repulsion’ effects, Coles *smartbuy* and Coles *Gold* were the brand variants used. To test for ‘attraction’ effects between the two NB variants, Nescafe *Blend 43* and Nescafe *Gold* were used (same as those used in Study 1). For ice cream products, the SB

variants were Woolworths *homebrand* and Woolworths *Select*, and the NB variants were Bulla *Real Dairy* and Bulla *Creamy Classics*.

Hence, there were two essential differences between Study 1 and Study 2. In the former study the choice set made salient, perceived quality differences between SBs and NBs, whereas in the latter study, this potential basis for comparing brands was not salient. The second major difference is that in Study 1 the focal NBs could be evaluated relative to other NBs in the same product category, whereas in Study 2 there were no other NBs in the choice set to serve as a point of comparison. As elaborated below, these basic distinctions may have had several effects on how the focal SBs and NBs were perceived in the various choice sets.

4.3 Effects of the difference in category assortment

The presence of multiple NBs in the assortments used in Study 1 but not in the assortments used in Study 2 may have affected the results in two ways.

4.3.1 Firstly, it may have increased the likelihood of NB ‘attraction’ effects, as the two variants of the same NB in Study 1 could be contrasted with the other NBs in the choice set. So, for example, the two brand variants of Nescafe coffee – *Gold* and *Blend 43* – seem more similar when featured together mainly to the extent that these two versions of Nescafe can be contrasted with the other NBs in the choice set (i.e., Robert Timms and Moccona). When these other NBs are not in the choice set (i.e., Study 2), there is little or no basis for perceiving them as being similar, so a repulsion effect is driven by the difference in price/quality at the sub-brand level.

In other words, since there were no additional NBs to compare against, the different Nescafe brand variants (i.e., *Blend 43* and *Gold*) produced ‘repulsion’ effects instead of ‘attraction’ effects. A simple comparison of the key results available for these Nescafe brand variants, used in both the first and second studies, provides some support for this view (refer Table 6.3).

Table 6.3 – Summary of NB Coffee Product Means – Study 1 versus Study 2

	<u>‘Alone’</u>	<u>‘Alone’</u>		<u>‘Paired’</u>	<u>‘Paired’</u>
	<u>Study 1</u>	<u>Study 2</u>		<u>Study 1</u>	<u>Study 2</u>
<u>Coffees</u>	(Mean)	(Mean)		(Mean)	(Mean)
Nescafe <i>Gold</i>	5.57	4.41		5.02	5.19
Nescafe <i>Blend 43</i>	n/a	4.51		4.68	4.19
<u>Mean Difference</u>	n/a	-0.10		0.34	1.00

In the first study where Nescafe *Gold* and Nescafe *Blend 43* are displayed with two other NBs, the mean difference is smaller than in the second study (i.e., 0.34 versus 1.00) where other NBs are not present. Hence, in the second study ‘repulsion’ effects were more evident for both Nescafe brand variants when displayed together versus on their own. From a starting ‘alone’ position where there is effectively no mean difference (i.e., ‘attraction’) between these two brand variants, the mean difference expands to 1.00 when they are displayed alongside one another, thereby creating the ‘repulsion’ effect.

Although a specific choice set to establish the starting point for Nescafe *Blend 43* was not tested in the first study, Nescafe *Gold* appears to have been drawn towards (i.e., been ‘attracted’ to) its sibling. This is evidenced by the mean for Nescafe *Gold* decreasing from 5.57 to 5.02, when on its own versus together with Nescafe *Blend 43*.

In net, to achieve the hypothesised ‘attraction’ effects between a higher and lower quality variant of the same NB, future research studies should include multiple NBs in the product assortments, which will also provide greater ecological validity, as assortments in

most supermarket product categories include more than one NB. Over the past decade, consumer surveys (Langley, 2013) have reported a reduction in the number of NBs within most grocery category assortments; before there were 4-6, now there are likely to be only 3-4 NBs present.

4.3.2 Secondly, another difference in the assortments used in the two studies may also explain why ‘repulsion’ effects were obtained for SBs in the second study but not the first study. In an assortment containing multiple SBs and NBs, a simple way to make sense of the brands would be to revert to the ‘NBs are better than SBs’ heuristic, hence pushing the variants of the same SB together in the mind of the consumer. In the absence of NBs, two variants of the same SB exhibit repulsion effects because there is no NB in the choice set to ‘hold down the more premium SB’.

For example, the perceived difference in price/quality between Woolworths *homebrand* versus *Select* is larger to the extent that the Bulla and Peters NBs are not also available in the ice creams choice set. With only the two SB variants in the choice set, the difference in price/quality at the sub-brand level drives perceptions. But if both Woolworths brand variants are contrasted with Bulla and Peters, the ‘NBs are better than SBs’ heuristic essentially pushes the evaluation of the *Select* variant down toward the *homebrand* variant. In terms of ecological validity, actual repulsion effects for two variants of the same SB may be limited by the presence of a strong NB in the choice set, which exerts a downward pressure on perceptions of all SBs regardless of their intended positioning.

4.4 Small price point differences for NBs versus those for SBs

In the second study, right from the start price point differences for NBs were small compared to those for the SBs, making it more difficult to achieve ‘attraction’ effects for NBs when their higher quality and lower quality variants were similarly evaluated. Here are some of reasons why this might have occurred.

4.4.1 Earlier cited research (Chapter 2) found that ‘a large majority of consumers hold some sort of price information for grocery products in memory’ (Vanheule & Dreze, 2002, p. 80). Although they are unable to *accurately* recall product pricing, consumer’s working knowledge of pricing is accurate enough to allow them to make good purchase decisions. More recently, research by Jensen & Grunert (2014) indicates that ‘the vast majority of consumers learn about (product) prices, whether consciously or unconsciously, during grocery shopping’ (p. 332).

So while regular grocery shoppers (e.g. our study participants) might have price information in memory, most would have real difficulty *accurately* suggesting the purchase price of specific product items, before they shop. Accepting that participants in the second study were not given any quantity/size direction, for seven of the eight brand variants, the expected price given for a NB item was well adrift of its actual shelf price, with a median price difference of 22-23% (refer Table 6.4).

Table 6.4 – Summary of NB Item - Expected versus Shelf Price*

<u>NB Item</u>	<u>Variant</u>	<u>Quantity</u>	<u>Expected Price</u>	<u>Shelf Price*</u>	<u>% Price Diff.</u>
			a	b	(b ÷ a)
<u>Coffees</u>					
Nescafe <i>Gold</i>	NBP	100g.	\$7.59	\$9.49	25%
Nescafe <i>Blend 43</i>	NBR	150g.	\$7.77	\$9.19	18%
<u>Ice Creams</u>					
Bulla <i>Creamy Classics</i>	NBP	2 Litre	\$5.58	\$7.59	36%
Bulla <i>Real Dairy</i>	NBR	2 Litre	\$5.54	\$6.49	17%
<u>Tissues</u>					
Sorbent <i>Aloe Vera</i>	NBP	95 sheets	\$3.44	\$2.69	[22%]
Sorbent <i>Everyday</i>	NBR	275 sheets	\$2.83	\$2.89	2%
<u>Toothpastes</u>					
Colgate <i>Total</i>	NBP	190g.	\$4.35	\$6.99	23%
Colgate <i>Multi-Cavity</i>	NBR	190g.	\$3.91	\$5.09	30%

* Note: shelf price is an average of Coles and Woolworths actual item pricing, June 2014

For example, the actual shelf price for Bulla *Cream Classics* of \$7.59 is 36% more than the expected price of \$5.58. For Sorbent *Aloe Vera*, the actual shelf price of \$2.69 is 22% less than the expected price of \$3.44. This is not to suggest that grocery shoppers are not concerned about price, it is clearly something they consider when they buy. However, as the % contribution of extrinsic and intrinsic attributes to the overall net valence of a NB item reveals, price is the least salient attribute for buyers of NBs (refer Table 6.5).

4.4.2 Frequencies of the ‘free associations’ collected were initially categorised, item by item, into extrinsic and extrinsic attributes (Dick et al., 1996; Chen, 2001). The three extrinsic attributes were: parent brand equity, packaging (graphics and text), and price; the three intrinsic attributes were: benefits, overall quality, and ingredients quality. Positive, negative or neutral ratings were applied to each of the six attributes to create attribute by attribute net valence scores, which were then summed to create the overall net valence for each NB (or SB) item. Associations judged to be positive were given a rating of +1.0, neutrals were rated 0.01, and those judged to be negative were rated -1.0 (Krishnan, 1996; Rahman, 2007). It is important to note that the number of brand associations for each NB (or SB) ranged from 252 to 311, with a median of 281-284. However, for ease of comparison

between the eight NB (or SB) items, the numeric valence scores for each of the six attributes were converted to a percentage of an item's overall net valence (Chen, 2001), and sub-totals (which add to 100 per cent) provided for the extrinsic and intrinsic attributes (refer Tables 6.5, 6.6).

Table 6.5 – Summary of % Contribution of Extrinsic & Intrinsic to NB Item Valences

				<u>Extrinsic</u>				<u>Intrinsic</u>
<u>NB Item/s</u>	<u>Parent Equity</u>	<u>Packaging</u>	<u>Price</u>	<u>Sub-total</u>	<u>Benefits</u>	<u>Overall Qual.</u>	<u>Ingred. Qual.</u>	<u>Sub-total</u>
	<u>a</u>	<u>b</u>	<u>c</u>	a+b+c	<u>d</u>	<u>e</u>	<u>f</u>	d+e+f
<u>Bulla</u>								
<i>Creamy</i>	8%	24%	5%	<u>37%</u>	37%	13%	13%	<u>63%</u>
<i>Real Dairy</i>	7%	14%	4%	<u>25%</u>	33%	18%	24%	<u>75%</u>
<u>Colgate</u>								
<i>Total</i>	16%	14%	3%	<u>33%</u>	45%	13%	9%	<u>67%</u>
<i>MCP</i>	23%	11%	6%	<u>40%</u>	41%	14%	5%	<u>60%</u>
<u>Sorbent</u>								
<i>Aloe Vera</i>	8%	22%	3%	<u>33%</u>	27%	10%	30%	<u>67%</u>
<i>Everyday</i>	10%	33%	5%	<u>48%</u>	27%	17%	8%	<u>52%</u>
<u>Nescafe</u>								
<i>Gold</i>	3%	11%	11%	<u>25%</u>	41%	21%	13%	<u>75%</u>
<i>Blend 43</i>	19%	7%	5%	<u>31%</u>	53%	8%	8%	<u>69%</u>

In all cases, intrinsic are the major contributor to a NB variant's net positive valence (i.e., favourability), ranging from a low of 52% for Sorbent *Everyday* to a high of 75% for Bulla *Real Dairy* and Nescafe *Gold*. The saliency of price on the net favourability of a NB variant is negligible, with a median of only 5%. Essentially, each pair of NBs is seen as 'near' substitutes with each variant successfully delivering the benefits they promise at the level of quality that grocery shoppers are willing to pay for. More broadly, the consistency of attribute contributions suggests that there are more similarities than differences in product-relevant associations between the NB siblings that draw them together (i.e., 'attraction'), at least initially. By only displaying two NBs together from the same parent in Study 2, we appear to have forced the participants to look more for differences and overlook similarities, creating 'repulsion' effects between them.

In sharp contrast with the NB variants, price is two to three times a more salient contributor to the SB valences than it was for the NB valences, a median of 11% to 17% (refer Table 6.6). Also, while all NBs have ‘net positive’ valences, SBs split by variant type on this measure. The SBRs have ‘net positive’ valences’, with intrinsics’ major contributors to the valences for three of the four variants (except *Select* ice cream) ranging from 56% to 88%. There is no consistent pattern of attribute contribution to the ‘net negative’ valences of SBEs.

Table 6.6 – Summary of % Contribution of Extrinsic & Intrinsic to SB Item Valences*

				<u>Extrinsic</u>				<u>Intrinsic</u>
	<u>Parent Equity</u>	<u>Packaging</u>	<u>Price</u>	<u>Sub-total</u>	<u>Benefits</u>	<u>Overall Qual.</u>	<u>Ingr.</u>	<u>Sub-total</u>
	<u>a</u>	<u>b</u>	<u>c</u>	a+b+c	<u>d</u>	<u>e</u>	<u>f</u>	d+e+f
<u>SBE Item/s</u>								
<i>smartbuy</i> coffee	[2%]	[32%]	[23%]	[57%]	[14%]	[28%]	[1%]	[43%]
<i>smartbuy</i> toothpaste	[3%]	[23%]	[19%]	[45%]	[7%]	[31%]	[17%]	[55%]
<i>homebrand</i> tissues	8%	[35%]	[8%]	[35%]	[55%]	[18%]	8%	[65%]
<i>homebrand</i> ice	[3%]	[31%]	[26%]	[60%]	[6%]	[72%]	38%	[40%]
<u>SBR Item/s</u>								
<i>Gold</i> coffee	9%	5%	[2%]	12%	81%	[7%]	14%	88%
<i>Total Care</i>	0%	27%	17%	44%	41%	7%	8%	56%
<i>Select</i> tissues	1%	41%	1%	43%	28%	13%	16%	57%
<i>Select</i> ice cream	4%	39%	11%	54%	25%	12%	9%	46%

*Note: %'s in [] indicate ‘net negative’ contributions to a SB item’s valence

For two SBEs (*homebrand* ice cream, *smartbuy* coffee) extrinsics are the major contributors to each variant’s negative valence, 60% and 57% respectively. Alternatively, for the other two SBEs (*homebrand* tissues, *smartbuy* toothpastes) intrinsics are the major contributors to each variant’s negative valence, 65% and 55% respectively.

These differences in attribute contributions to the net valences for SBEs (negative) and SBRs (positive) help make sense of the differing contribution of each to the ‘repulsion’ effects observed between them; the SBE contributed more to these effects than the SBR. Even though SBEs give retailers a much needed positioning foil for their SBRs, they still

ignite decades of ‘negative’ associations and were disproportionately punished when contrasted with their SBR siblings in Study 2. At the same time, the more recently introduced SBRs are attempting to distance themselves from their SBE siblings by being ‘better value’ product alternatives to low equity NBs. However, if the choice set has high equity NBs, as occurred in Study 1, then the SBRs may not be perceived in these favourable terms but instead forced downwards by the presence of NBs (Geyskens et al., 2010).

In net, accepting that most grocery shoppers have genuine difficulty nominating the exact price of a given product item yet price remains an important signal for product quality, it is worth considering the inclusion of *actual* SB and *actual* NB prices in future ‘brand gravity’ studies.

5.0 Managerial implications of the ‘Brand Gravity’ model

Brand gravity has practical implications for both retailers and manufacturers. For SBs, Coles and Woolworths can only successfully establish multiple price/quality points with line extensions when all three sub-brand variants are included in the assortment. Removing a lower price/quality variant causes the other variants to fall downwards and, in all likelihood cause one or both SBs to be discontinued. In other words, when only one variant of a SB appears in a choice set alongside several NBs, the ‘NBs are better than SBs’ heuristic results in it being evaluated as a low price/quality alternative regardless of the intended positioning at the sub-brand level.

And the results of Study 1 suggest, even this conclusion must be qualified. If the assortment contains a strong NB, then when the choice set includes multiple variants of the same SB, positioned at different price/quality points, the strong NB may push perceptions of even the highest SB (e.g. the SBP, Coles *Finest*) down to the level of the other two.

For NBs, the brand gravity story is different. The brand gravity model suggests that it will be difficult for multiple variants of the same NB in an assortment to create multiple price/quality points due to attraction effects. Since NBs in general possess more brand gravity (i.e., product-relevant brand associations) at the parent brand level, two variants of the same NB will tend to be perceived as similar in terms of price and quality relative to the other NBs in an assortment (i.e., they will attract one another to the same price/quality point). Instead, NBs must use multi-branding within a category to successfully establish multiple price/quality points.

Here are some marketplace examples of the different ways both of the major grocery retailers and various established manufacturers are currently offering multiple price/quality points in the Australian grocery market. In each case, it is possible to interpret the effects of the branding tactic in terms of the brand gravity model.

The first product category for analysis is the multi-million dollar processed Petfood market (for cats and dogs) which caters to the needs of the more than 1 in 2 households in Australia (ACAC, 2010) that own a pet of some kind (refer Table 6.7).

Table 6.7 – Petfood Price Tiers Offered by the Major Retailers and Manufacturer

	<u>Coles</u>	<u>Woolworths</u>	<u>Mars Petcare</u>
<u>Catfood/P/Q Tiers</u>			
Premium/3 rd Tier	Purr*	Woolworths <i>Select Fine Choice</i>	Dine
Regular/2 nd Tier	Coles <i>Complete Cuisine</i>	Woolworths <i>Select Your Cat</i>	Whiskas
Economy/1 st Tier	Coles <i>smartbuy</i>	Woolworths <i>homebrand</i>	Kit-e-Kat
<u>Dogfood/P/Q Tiers</u>			
Premium/3 rd Tier	Banquet*	Woolworths <i>Select</i>	My Dog
Regular/2 nd Tier	Banquet*	-	Pedigree
Regular/2 nd Tier	Coles <i>Complete Balance</i>	Woolworths <i>Select</i>	-
Economy/1 st Tier	Coles <i>smartbuy</i>	Woolworths <i>homebrand</i>	Chum
	* Exclusive to Coles		

This is an interesting line-up of brands for both major retailers indeed, and not what their evolving SB portfolio strategies would suggest to be the optimum, most cohesive SB equity building approach. Rather than use this very high household penetration product category to clearly establish their three P/Q tiers, each retailer has used a different approach. Coles has adopted a multi-brand portfolio approach with exclusive stand-alone brands, *Purr* and *Banquet*, filling its premium/3rd tiers, and its SB variants occupying the other two tiers. Woolworths, on the other hand, has a confused SB portfolio with *Select* (only or with descriptors) being used to straddle the 2nd and 3rd tiers, and its *homebrand* variant in the bottom tier. In the absence of any dedicated promotional support, Coles is reliant on lower-price product associations as the only means by which its premium petfood brands can compete with those offered by Mars Petcare, the well established market leader. While it's a similar price/quality story for Woolworths premium catfood and dogfood sub-brands, pet owners will potentially take *Select*'s multi-tier variability in quality perceptions in the petfood category to this retailer's other grocery product categories.

By not using Coles *Finest* or Woolworths *Gold* to occupy the premium tier of their respective three-tier petfood product portfolios, each retailer has compromised their ability to uniformly establish distinct quality associations, store-wide for each of their SB variants.

Mars 'house of brands' approach to the petcare market is also adopted for their confectionery (*Mars*, *M&M's*, *Snickers*, *Skittles*), and human foods (*Masterfoods*, *Dolmio*, *Kan Tong*, *Uncle Ben's*) business units. Through regular market research that provides a deep understanding of consumer need-states and enables precise segmentation, Mars' multi-branding strategy is used to establish multiple price/quality points for each of its stand-alone brands in several product categories. This is precisely the optimal branding strategy implied by the brand gravity model. However, it is interesting to comment on Mars using the same branding strategy in these three product categories. The advertising to sales ratio for

confectionary is 60% higher than that for pet food (Schonfield & Associates, 2010; ACAC, 2010; Zenith Optimedia, 2010), suggesting that the brand gravity and potential attraction effects are stronger in the former rather than the latter product category. Although it is very unlikely that sub-branding would work for candy bars (due to strong attraction effects), it is likely to work for pet foods.

The following overviews and analyses of two smaller product categories, olive oil (refer Table 6.8) and smoked salmon (refer Table 6.9) reveal that the major retailers and the leading manufacturer/s have adopted quite different multi-tier product portfolio approaches for each of these categories.

Table 6.8 – ‘Olive Oil’ Price Tiers Offered by the Major Retailers and Manufacturer

<u>P/Q Tiers</u>	<u>Coles</u>	<u>Woolworths</u>	<u>Cobram Estate</u>
Premium/3 rd Tier	Coles <i>Finest</i>	Woolworths <i>Gold</i>	Cobram Estate <i>Premiere</i>
Special/2 nd Tier	Coles <i>Organic</i>	-	-
Regular/2 nd Tier	Coles (only)	Woolworths <i>Select</i>	Cobram Estate <i>Classic</i>
Economy/1 st Tier	Coles <i>smartbuy</i>	Woolworths <i>homebrand</i>	-

For the olive oil category both Coles and Woolworths are using the three-tier SB portfolio structure suggested by the brand gravity model. Inclusion of an *Organic* variant in a special 2nd-tier protects the overall Coles SB portfolio against cross-shoppers tempted to buy Woolworths stand-alone *Macro* organics brand. Meanwhile, given Coles and Woolworths 1st and 2nd tier SBs are similar price/quality offerings, it is reasonable to suggest they effectively signal the relative differences in price-quality associations of each of these sub-brands.

However, each retailer has positioned their respective 3rd tier SB Extra Virgin olive oil offering in a very different manner. Coles *Finest* is sourced from within Australia and sells for \$9.00, double the price of Coles (only). Woolworths *Gold* which now comes from Spain (originally sourced from Italy) sells for \$14.99, more than triple the price of

Woolworths *Select*, and over twice the price of the premium extra virgin olive from well-known UK chef, *Jamie Oliver*. Quite clearly, both retailers are trying to create distinctive highest quality perceptions for their 3rd tier SB variants. Coles seems to have credibly placed *Finest*, enabling shoppers to make good sense of the three tiers within its SB portfolio. On the other hand, Woolworths appears to have pushed *Gold* well beyond what grocery buyers will find believable, detracting from how each quality level of this retailer's three-tier SB portfolio should be interpreted.

Exhibiting confidence in the strength of its eponymous brand the leading NB, Cobram Estate, has recently 'upstretched' to the premium tier with line extension *Premiere*, instead of introducing an entirely new brand. By adopting this portfolio approach, Cobram Estate has violated the brand gravity model. 'Attraction' effects will make it difficult for the parent brand to establish a premium price/quality positioning using only a 'generic' sub-brand like *Premiere* (Rahman and Areni, 2014). Priced 50% above its regular brand variant, 33% above Coles *Finest*, and 20% below Woolworths *Gold*, *Premiere* will need to convincingly deliver the superior quality difference inherent in its pricing structure and special ingredients' story, to minimise any potential cannibalisation of its regular quality sibling.

Smoked salmon, the final example (Table 6.9), illustrates how multiple price/quality points work best in a small (albeit niche) product category where 'fresh, healthy' food is under very close scrutiny and much sought after by its buyers. Both major retailers have conceded that their SBEs' very low product quality associations fall well below this category's minimum level of acceptable food quality, hence Coles *smartbuy* or Woolworths *homebrand* are not offered. Each retailer instead employs a two-tier only SB portfolio with Coles *Finest* and Woolworths *Gold* challenging *Superior Gold* at the top tier level, while Coles (only) and Woolworths *Select* compete with the *Tassal* eponymous brand at the 2nd tier level.

Although the SB portfolio approach taken by both major grocery retailers departs from the ‘brand gravity’ model by not offering the lowest price/quality variant, judgement suggests that, smoked salmon is one of those cases where, it is much better to demonstrate an astute understanding of the category needs, rather than supply a SB variant which is soon deleted. Furthermore, the brand gravity model is generic, making the same basic recommendations across all product categories. Yet, clearly the specific characteristics of each product category (as for smoked salmon) may influence the specific brand portfolio tactics to be used.

Table 6.9 – ‘Smoked Salmon’ Price Tiers Offered by the Major Retailers and Manufacturer

<u>P/Q Tiers</u>	<u>Coles</u>	<u>Woolworths</u>	<u>Tassal</u>
Premium/3 rd Tier	Coles <i>Finest</i>	Woolworths <i>Gold</i>	Superior Gold
Regular/2 nd Tier	Coles (only)	Woolworths <i>Select</i>	Tassal
Economy/1 st Tier	-	-	-

When vertically integrated Tassal Group acquired the *Superior Gold* brand in 2008, they stated their intention to keep it distant from the *Tassal* brand whilst drawing upon the unique and distinct brand associations of each, consolidating their corporate position as the ‘fish experts’. Providing clear evidence of Tassal Group’s sustained commitment to a multi-brand approach is the November 2014 re-launch of *Superior Gold* which is supported by very high quality online and offline consumer advertising & promotion that makes no mention of its Tassal parentage. At the same time, the *Tassal* brand is receiving good quality online and offline consumer advertising & promotion that does not reference *Superior Gold*.

As the prime catalyst for driving the major grocery retailers to upgrade and extend their SB product portfolios, Aldi’s portfolio approach warrants consideration. By way of context, Aldi has only 345 ‘mini-warehouse’ style stores, less than half the number of Coles or Woolworths, each of which carries about 1,000 to 1,200 product items versus the 35,000 to 40,000 items stocked by each of these major grocery retailers. Invariably each month and

then annually over the past three years, Roy Morgan surveys report that Aldi has the most satisfied customers of any retail grocery store.

Across ten product categories captured in Table 6.10 below, Aldi does not have a common brand for all product categories, instead it uses an exclusive brands portfolio approach. The mid-tier is always occupied either by a unique brand, such as *Casa Barelli* for olive oils, or a ‘stretched’ brand like *Alcafe* for instant coffees. Now and then, Aldi uses a mid-tier brand to endorse a 3rd tier variant, *Monarc* for *Indulge* premium ice cream or *Silvester’s* for *Cachet* premium catfood. Occasionally one of their exclusive brands will be applied across multiple related product categories. For instance, *Confidence* for facial tissues, paper towels, table napkins, and toilet paper, or *Dentitex* for mouthwashes, and toothbrushes, as well as toothpastes.

Table 6.10 – Summary of SB Tiers Offered by Aldi Across Ten Product Categories

<u>Product Category</u>	<u>SBEs</u>	<u>SBRs</u>	<u>SBPs</u>
<u>Canned Fruits</u>	Sweet Valley	Sweet Valley	-
<u>Coffees (instant)</u>	Alcafe <i>Classic</i>	Alcafe <i>Gold</i>	-
<u>Fruit Spreads</u>	Grandessa	Ouverture	Meilleur
<u>Ice Creams</u>	Milfina	Monarc	<i>Indulge</i> /Monarc
<u>Milks</u>	-	Farmdale	Just Organic
<u>Olive Oils</u>	Remano	Casa Barelli	The Olive Tree
<u>Petfoods</u>			
Catfood	Silvester’s	Silvester’s	<i>Cachet</i> /by Silvester’s
Dogfood	Rocky	Julius	Julius
<u>Smoked Salmon</u>	-	Almare	-
<u>Tissues (facial)</u>	Confidence	Confidence (medicinals)	-
<u>Toothpastes</u>	-	Dentitex – <i>Total Care</i>	-

Unlike other grocery retailers in Australia, Aldi has constantly used its ‘*smarter shopping*’ positioning to build distinct product-relevant associations for its entire product

range via umbrella advertising & promotion campaigns, underpinned by basket pricing that is at least 20% below that of Coles and Woolworths. Signalling their long-term growth plans in 2009, Aldi opened a \$35 million product development and quality assurance centre at its Australian headquarters with Michael Kloeters, Group Managing Director, stating ‘We blind taste test all of our products regularly, comparing them against leading household brands to ensure they are still equal or better than them’ (Retailbiz, 2009). In addition, recent heavily supported signature campaigns such as ‘*Aldi - Like brands, only cheaper*’ and the ‘*Switch and save*’ challenge are steadily changing the quality and value perceptions of Aldi’s products (IPA, 2014). In other words, Aldi’s portfolio of exclusive SBs have the potential to acquire considerably more gravity at the parent brand retail level than the SBs of Coles, Woolworths, and the other supermarket chains.

It is evident that both major Australian grocery retailers are committed to ‘fast-track’ store-wide evolution and deepen shopper understanding of their three-tier price/quality SB portfolio strategies. However, to date, there appears to not only be a lack of consistency as to how their respective strategies are being implemented but also the potential for use of the ‘brand gravity’ model to positively enhance their decision-making. Although these retailers have access to the customer data and analytics capability to slice it into manageable chunks, they seem to have lacked the foresight and SB equity building commitment to ensure that each of the price/quality tiers across multiple product categories will uniformly deliver at the different levels of quality being promised to their customers.

On the other hand, as more NB manufacturers pro-actively rationalise their brand portfolios to focus R&D resources, financial and marketing investment on the power brands (i.e., those with a global turnover in excess of a billion dollars), their marketing emphasis will perhaps shift to identifying overall category and channel expansion opportunities. Nestle being a stand-out example of how their very strategic, direct-to-customer development of the

Nespresso ‘coffee community’, found its way back to the grocery sector as *Nescafe Dolce Gusto* pods, thereby expanding the overall size and innovativeness of the coffee category and increasing grocery retailer’s competitiveness versus ‘barista-crafted’ coffee.

At the same time, more agile locally focused grocery retailers and NB manufacturers need to seek out fresh opportunities to own ‘specialty’ consumer markets of lesser interest to the bigger, high volume players. Examples of each that come readily to mind are the ‘*About Life*’ retailer of natural wholefoods and *Carman* Foods who dominate the muesli product category.

Finally, given the recent ownership and management changes at *DJ*’s, Australia’s leading department store, as well as its nearest *Myer*, coupled with the continuing influx of overseas fashion retailers such as *Zara*, *H&M*, *Top Shop*, and *Uniqlo*, it is highly likely that the SB portfolio strategies in this major retail sector will also be re-evaluated.

6.0 Limitations and Future Studies

As with most research studies, it is necessary to highlight some of the limitations that may affect the generalisability of the results of the ‘brand gravity’ model. In so doing, areas for future studies will be identified.

A country market’s stage of SB development is the first limitation to be considered. Europe is the most ‘highly developed’ SB region, especially in the Western markets, with major countries such as the UK and Germany holding percent shares of total grocery dollars of 41% and 34% respectively. Asia Pacific is the most under-developed SB region with tiny dollar shares, ranging from 5% for India to 1% for China. Whilst Australia with a SB share of 21% is centred within a cluster of thirteen ‘developing’ markets which includes Canada, South Africa, and the USA (refer Appendix 1).

Although reasonable to predict that SBs have little ‘brand gravity’ within specific product categories in the developing and under-developed markets, this may not hold true in the highly developed markets. In favour of this view, leading retailers in the highly developed UK and German markets have had more decades to establish , re-imagine, upgrade and potentially stretch the inherent quality of their SB portfolios. For example, Gielens (2012) found that new SBs from the UK’s three leading retailers (Asda, Sainsbury, Tesco) mimicked the behaviour of NBs introduced by leading manufacturers. Specifically, ‘products introduced by the leading SBR, SBP and NB appear more likely to increase category sales, in contrast to products introduced by follower SBEs or NBs’ (Gielens, 2012, p. 420). Despite knowing that the ‘top three’ NBs and SBs represented at least 80% of sales in the categories examined, it is not known whether for ‘better value’ or ‘brand gravity’ reasons consumers bought more of the leading SBs. While evidence suggests that in SB developing countries more so than SB developed countries ‘marketing efforts (in particular, distinctive packaging and advertising) play a large role in enhancing quality gap perceptions between SBs and NBs’ (Steenkamp et al. 2010, p. 1021).

More precisely identifying the key contributors to the successful launch of leading NBs and SBs at each *P/Q* tier, in developing and highly developed SB markets, justifies further research consideration.

Signalled earlier, in this and Chapter 1, was the major impact of Aldi’s Australian entry in 2001 on the evolution of SB portfolio strategies for Coles and Woolworths. From Aldi’s limited assortment of exclusive SBs, very high levels of multiple-retailer shopping, and industry research (Langley, 2013), it’s possible to deduce that Aldi is a complementary shopping trip. While anecdotally it is reasonable to suggest that Aldi has considerable ‘brand gravity’ at the retail parent brand but not at the product category level. However, local

research that examines consumers' *P/Q* perceptions of Aldi's exclusive SBs is lacking and needs consideration.

Heightening the value of such research is the possible Australian launch of Lidl, the other German-born hard discounter, expected to challenge all grocery retailers. Already in more overseas countries, Lidl's market share of 3.8% in the UK (The Economist, 2015) now exceeds that of Aldi. In contrast to its close rival, NBs constitute 30 to 35 per cent of a Lidl assortment versus only 5 to 7 percent of an Aldi one, making it possible for Lidl to be an alternative shopping trip to the other grocery retailers. Some initial investigation of the consumer appeal of the Lidl offering, perhaps within the aforementioned research, is warranted.

Now, turning to discussion of some issues that may have arisen from the Method used, especially for *Study 2*.

Cognizant that the 76% of grocery purchase decisions are made in-store (POPAI, 2012) and successful offline pilot testing (McDonald, 2012), *real* packages were used as stimuli, in synch with Steenkamp et al. (2010), Palmeira and Thomas (2011). In so doing, there is obviously a trade-off between ecological validity and experimental control. However, similar to Steenkamp et al. (2010) the aim of *Study 2* was to effectively measure perceived quality differences between product items from the same parent brand. By using *real* packages, consistency and commonality in stimuli exposed to respondents was naturally achieved. Some researchers may not share that view, hence make the same 'trade-off' decision.

For future studies, including the type of product user/non user measures used by some researchers in the SB field (e.g., Nenycz-Thiel & Romaniuk, 2014), would enable additional analysis of survey data and may potentially enhance the managerial value.

Finally, apart from the usual demographics of age, gender, marital status, education, household size, and where lived, ‘familiarity’ of brand items was also measured. For each Study, results presented in Chapters 4 and 5 were analyzed on a ‘Total’ respondents’ basis. While a separate analysis of *Study 2* undertaken on a ‘familiar’ basis (refer Appendix 3), indicated a similar pattern of ‘brand gravity’ results to the ‘Total’ respondents’ results.

Appendix 1

List of Attached Tables

1. Pre-test ‘Tier’ Results of Stimulus for Brand Items
(Study 2)
2. Familiarity of All ‘Stimulus’ Brand Items + Category
Purchase (Study 2)
3. SB Stage of Development by 48 Countries – 2013.

Pre-Test "Tier" Results of Stimulus for Brand Items - Study 2

Category	Parent Brand	Vertical Line Extension	Size	Shelf Price \$'s	Price/Unit	Price Tier	Unit Price % Difference v's Lower Tier
Coffees				\$'s			
					100g		
	Coles	smartbuy	200g	\$3.98	1.9900	SBE]
	Coles	Gold	100g	\$4.18	4.1800	SBR	] + 110% Price Diff. v's SBE
	Nescafe	43	150g	\$9.19	6.1267	NBR]
	Nescafe	Gold	100g	\$9.49	9.4900	NBP	] + 55% Price Diff. v's NBR
Ice Creams					1 Litre		
	Woolworths	homebrand	2 Litre	\$2.19	1.1000	SBE]
	Woolworths	Select	2 Litre	\$5.00	2.5000	SBR	] + 127% Price Diff. v's SBE
	Bulla	Real Dairy	2 Litre	\$6.49	3.2450	NBR]
	Bulla	Creamy Classics	2 Litre	\$7.59	3.7950	NBP	] + 17% Price Diff. v's NBR
Tissues					100 sheets		
	Woolworths	homebrand	224 sheets	\$1.00	0.4500	SBE]
	Woolworths	Select (Aloe Vera)	95 sheets	\$2.09	2.2000	SBR	] + 389% Price Diff. v's SBE
	Sorbent	Everyday	275 sheets	\$2.89	1.0509	NBR]
	Sorbent	Aloe Vera	95 sheets	\$2.69	2.8316	NBP	] + 169% Price Diff. v's NBR
Toothpastes					100g		
	Coles	smartbuy	150g	\$1.35	0.9000	SBE]
	Coles	Total Care	140g	\$2.00	1.4286	SBR	] + 59% Price Diff. v's SBE
	Colgate	Multi-Cavity Protection	190g	\$5.09	2.6789	NBR]
	Colgate	Total	190g	\$6.99	3.6789	NBP	] + 37% Price Diff. v's NBR

Familiarity of All "Stimulus" Brand Items + Category Purchase - Study 2

Category	Parent Brand	Vertical Line Extension	P/Q Tier *	"Familiar"	Comments
	NBs				
Toothpastes	Colgate	Multi-Cavity Protection (MCP)	NBL	89%	
	Colgate	Total	NBH	96%	
Coffees	Nescafe	43	NBL	92%	< Compares with 97% ('same' packaging) for Study 1.
	Nescafe	Gold	NBH	64%	< Compares with 81% ('same' packaging) for Study 1.
Ice Creams	Bulla	Real Dairy	NBL	45%	< Compares with 81% ('old' packaging) for Study 1.
	Bulla	Creamy Classics	NBH	84%	
Tissues	Sorbent	Everyday	NBL	67%	
	Sorbent	Aloe Vera	NBH	56%	
	SBs				
Tissues	Woolworths	homebrand	SBL	54%	
	Woolworths	Select (Aloe Vera)	SBH	50%	
Ice Creams	Woolworths	homebrand	SBL	51%	< Compares with 42% ('old' packaging) for Study 1.
	Woolworths	Select	SBH	36%	
Toothpastes	Coles	smartbuy	SBL	37%	
	Coles	Total Care	SBH	27%	
Coffees	Coles	smartbuy	SBL	24%	
	Coles	Gold	SBH	26%	< Compares with 40% ('same' packaging) for Study 1.
	Purchased Category (past 3 mths):				
	Toothpastes - 90%				
	Coffees - 77%				
	Ice Creams - 87%		* P/Q Tier designations for Study2 'Brand Gravity' Model purposes		
	Tissues - 81%				

SB Stage of Development by 48 Countries - 2013

No.	% \$ Share	Country	SB Dev't Stage	Aldi Pres.	Lidl Pres.	Comments
1	45%	Switzerland	] <u>Very Developed</u> (3)	Yes	Yes	
2	41%	Spain		Yes	Yes	
3	41%	United Kingdom		Yes	Yes	
4	34%	Germany	] <u>Highly Developed</u> (8)	Yes	Yes	
5	33%	Portugal		Yes	Yes	
6	30%	Belgium		Yes	Yes	
7	29%	Austria		Yes	Yes	
8	28%	France		Yes	Yes	
9	27%	Netherlands		Yes	Yes	
10	25%	Denmark		Yes	Yes	
11	25%	Sweden		Yes	Yes	
12	24%	Hungary	] <u>Developing</u> (13)	Yes	Yes	
13	24%	Poland		Yes	Yes	
14	22%	Czech Republic			Yes	
15	22%	Finland	] <u>Adolescent</u> (7)	Yes	Yes	
16	22%	Slovakia			Yes	
17	21%	Australia		Yes		
18	21%	Norway	] <u>Embryonic</u> (7)			
19	18%	Canada				
20	18%	South Africa				
21	18%	USA	] <u>Infantile</u> (9)	Yes	Yes	
22	17%	Ireland		Yes	Yes	
23	17%	Italy			Yes	<u>Weighted Global Average: 16.5%</u>
24	16%	Greece			Yes	
25	15%	Colombia				
26	14%	Turkey				
27	13%	New Zealand				
28	10%	Chile				
29	9%	Argentina				
30	8%	Mexico				
31	8%	Singapore				
32	7%	Peru				
33	6%	Israel				
34	6%	Russia				
35	5%	Brazil				
36	5%	Hong Kong				<u>Sources:</u>
37	5%	India				"The State of Private Label Around the World", Nielsen November 2014. plus Websites for Aldi and Lidl.
38	5%	Ukraine				
39	4%	South Korea				
40	3%	Venezuela				
41	3%	Taiwan				
42	2%	Malaysia				
43	1%	China				
44	1%	Indonesia				
45	1%	Philippines				
46	1%	Saudia Arabia				<u>Special Note</u>
47	1%	Thailand				Lidl in 20, Aldi in 17
48	1%	UAE				of 48 countries
	<u>Sub-Totals:</u>	<u>48</u>		<u>17</u>	<u>20</u>	Nielsen measured.

Appendix 2

FINAL Categorisation of Free Associations

(16 x Brand Items)

Coffees

- Coles smartbuy
- Coles Gold
- Nescafe 43
- Nescafe Gold

Ice Creams

- Woolworths homebrand
- Woolworths Select
- Bulla Real Dairy
- Bulla Creamy Classics

Tissues

- Woolworths homebrand
- Woolworths Select (Aloe Vera)
- Sorbent Everyday
- Sorbent Aloe Vera

Toothpastes

- Coles smartbuy
- Coles Total Care
- Colgate Multi-Cavity Protection
- Colgate Total

Coles smartbuy Coffee - FINAL Categorisation of Free Associations.

Price	Pack Graphics/Design	Pack Linguistics/Text	Overall Quality	Quality of Ingredients	Functional Benefits	Non-F Benefits*	Miscellaneous
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Cheap	Looks unappealing	smartbuy	Good, Nice, Bit tempting	Maybe not gourmet	Tasteless	Nice and relaxing	Creating market
Economical	Basic, bland, boring	[instant] coffee	Don't buy/drink coffee	Artificial, Processed	Bitter coffee, Strong	Me time	Unknown
Budget buy	Cheap packaging .. Quality?	No product information	Basic, Instant, Inferior product	Reasonably flavoured	Not strong enough	Good to share	Pushing other products off shelf
Cheap coffee	Terrible photo of coffee cup		Cheap and nasty, Tired	Brought from where	Freshening, Refreshing	Wouldn't serve	Lacking choice, Reduced selection
Inexpensive	Labeling does not show Q.		Less than best, Prefer others	Quality ingredients missing	Convenient, Dissolve	to others	Cool, Rainforest
Cheap price	Ugly box		Won't like, Never buy	smartbuy quality not good	Bad/Burnt taste		Would it be any good?
Less money	Normal, Plain packaging		Awful, Desperation, Yuck	Not healthy	Watery, Weak		One of many different choices
Budget friendly	Looks cheap	<u>7</u>	Generic, Homebrand, Imitation	Australian	Dissolve, Easy, Quick		Travel pack
Too expensive	Nice cup of coffee		Unlikeable, Not for me	Would store in airtight jar	Bland, Lacks flavour		
Get what you pay for	Simple, Basic		Low(er)/Unsure about Quality	Cardboard	(Maybe Nice) Aroma		
Cheaper brand	Reminds me of cocoa box	<u>Parent Equity</u>	Doesn't have appeal	Country of Origin	Inferior/Poor taste (ing)		
Poor value	Packaging - tastes horrible?	<u>4</u>	Uninterested, Hate Coffee		Just add/Boil water/No mess		
Waste of money	Looks like tea	Coles own label	It is not good quality		Tasteful		
Good value	Looks cheap v/s inexpensive	Coles	Not really keen on instant		Horrible flavour		
Cheaper than some	Unattractive	Coles cheapest hbrand	Reminds of old stale coffee		Nasty taste (ing)		
Budget conscious	Colour, White		Will only buy freeze-dried		Keep in drawer at work		
Moneyback guarantee	No frills packaging		Wouldn't buy it		Non aromatic		
Good taste for price	Boring colour scheme		Nasty, won't taste good		Can't use in coffee machine		
Good when money low	Nicer cup - more appealing		Not as good as name brands		Mild		
Low rent/socioeconomic	Cup - red and white striped		Australia in 70's, Old Ladies		Big Family		
Bulk Buy	Cup - pastel colour on white		Poor substitute		Little Luxury		
Sale (s) price	Don't like red and white		Does not meet my needs		Have on hand, odd occasion		
	White and Red for Coles		Only drink brewed coffee		Enjoyable		
	Unappealing packaging		Drink tea more than coffee		Satisfying, Warming		
	Nothing enhances quality		Average quality				
	Cheap and possibly nasty		Bad/Horrible quality				
	Serving size		Not good coffee				
			Taste like International Roast				
			Nothing enhances quality			* Non-functional benefits	
			Nescafe is best				
<u>60</u>	<u>65</u>	<u>7</u>	<u>77</u>	<u>13</u>	<u>60</u>	<u>4</u>	<u>11</u>

Coles Gold Coffee - FINAL Categorisation of Free Associations.

Price	Pack Graphics/Design	Pack Linguistics/Text	Overall Quality	Quality of Ingredients	Functional Benefits	Non-F Benefits*	Miscellaneous
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Cheap	Looks good quality	Coffee	OK, Good (Gold) Quality	Quality beans	Good/Great taste, Nice	Would never offer	Nescafe Gold coffee
Lower Cost	Attractive packaging	Gold	Classic, Premium, Rich	Quality Guarantee	Bitter, Strong (taste)	to visitors	Comparable to Moconna?
(Good) Value	Packaging looks cheap	Freeze-dried [instant]	Old, Boring, Crap	Glass packaging	Black, Fresh, Hot, Warm	Pick me up	Yes, I shop at Coles
Savings	Not inviting, Uninviting	100% Arabica Beans	Never buy this	Country of origin	(No) Flavour	Relaxing	New, Never seen it before
Basic, Inexpensive	Coloured for coffee - how apt		Generic/Home brand	Caffeine	Nasty instant flavour	Energising	What is the size of the jar?
Expensive	Nice package (ing)		Poor quality, Gross, Yuck	Freeze-dried	Not nice	Friends	Never tried, so how would I know
No value	Shows a fragrance (steamy)		Don't like freeze-dried	Grounds	Tasty		Cool, Earthy
Not worth the money	Don't like the packaging	<u>20</u>	Better quality than normal	Imported	(Good) Aroma, Aromatic		Blend 43
Wouldn't waste money	Bland, Plain, Simple		All the same, Acceptable		Smell, Sweet		Why no milk in picture?
Affordable	Looks good		Not the same as others		Nice and smooth		
Medium price range	Nice colouring	Parent Equity	Don't like cheap coffee		Satisfaction		
Price	Brown, Dark, Exotic	<u>4</u>	Average quality, Mid range		Musty, Not good taste		
Good quality, good price	Looks like Nescafe Gold	Coles brand	Gold means first class		Tasteless, Watery, Weak		
	Looks like mud	Coles	Inferior, supermarket brand		Easy, Everyday		
	Gross looking	I like Coles	Don't like instant coffee		No aroma		
	Looks very uninviting	Coles quality	Higher quality coffee		Breakfast, Morning,		
	Ugly package	Coles don't make coffee	Not appealing at all		Afternoon drink/tea		
	Unappealing packaging	Coles comparable value	Prefer branded coffee		Indulgence, Treat		
	Don't like picture on pack	Not interested in Coles	Not willing to compromise		Maybe doesn't taste good		
	Packaging looks conservative	branded products	Have to try, Desirable, Want		Family		
	old fashioned		Nice, Reliable				
	Pack design not very exciting		Would not change/buy				
	Looks like a poor comparison		Don't use generic coffee				
	to Nescafe		products				
	Good writing		Be just as good as Nescafe				
			or Moconna				
			Don't drink coffee				
			International Roast coffee				
						* Non-functional benefits	
<u>36</u>	<u>39</u>	<u>11</u>	<u>74</u>	<u>8</u>	<u>60</u>	<u>6</u>	<u>13</u>

Nescafe 43 Coffee - FINAL Categorisation of Free Associations.

Price	Pack Graphics/Design	Pack Linguistics/Text	Overall Quality	Quality of Ingredients	Functional Benefits	Non-F Benefits*	Miscellaneous
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Cheap	Colourful	[Coffee] Blend	bog standard, gross	A mixture, Blended	Easy, Quick to prepare	Pick me up	Could have mentioned size for price guess
Affordable	Ordinary labelling	Blend 43	Good, Nice coffee	Roasted beans	Delicious Aroma	When relaxing	Have 43 different coffees
Good cost	[instant coffee]	[What does 43 mean]	Brand I use	Italy	Bitter/Good/Nice taste	Wake up	
Good value			Inferior/Low quality	Grainy, Granules	Burnt, Dirty	Chat with friends	
Cheaper coffee		<u>4</u>	Main coffee	Dark blend	Full/Good flavour	Entertainment	
Expensive			Regular, Reliable, Standard	43 beans (in every cup)	Refreshing, Quenching	Feet Up	
Value for money		Parent Equity	Appealing, OK Quality	Grainy	Smells good/nice	Great time for cup	
Getting pricey		<u>4</u>	Have gone off this coffee	Antioxidants, Caffeine	Not too strong, Weak	Take a break	
Not too expensive		Everyday Nescafe	Boring, Fake, Sawdust	Rich full blend	Easy to drink	Drink with friends	
Bulk Buy		Been around forever	Best, Excellent coffee	Australian	Good strength, Smooth	Comforting	
		Old fashioned	Only one I'd buy	Acidic	Nasty taste	Restful	
		Well known brand	Commodity brand, Common	Tin packaging	Great taste	Fun	
		Good brand	Don't drink, it's horrible		Reasonably strong flavour	Hit	
		Famous brand	Nothing special, Ordinary		Vigorous		
		Nestle product	Not for me		Put kettle on, Get my mug		
		Classic, Popular	Ridiculous excuse for coffee		Good whenever		
		Recognised brand	Do like this brand		Handy, Milk		
		Trusted, Trustworthy	Always used		Coffee given/have at work		
		One of many in the brand	Fair, OK tasting		Hot, Plain, Sleepy		
		Familiar brand	Tastes the best		Cake, Biscuit - Tim tam		
		Many varieties	Mimicking real thing		Middle class family		
		Always/Readily available	Must to have in pantry		Good test, Staff Room		
		Everyone loves it	Don't want to be without it		Enjoyment, Satisfying		
		Longstanding, Traditional	Of all instants, would drink		Everyday drinking, Morning		
		Original	OK, if I can't get Nescafe Dark		For the house, Housewife		
		Mass market appeal	Better than International Roast		All ages, all genders		
		All classes	Not as good as café coffees		Can use as cake ingredient		
			Instant coffee is instant coffee		Uncomplicated		
			Prefer tea to Nescafe			* Non-functional benefits	
			Don't drink (instant) coffee				
<u>21</u>	<u>23</u>	<u>49</u>	<u>58</u>	<u>20</u>	<u>92</u>	<u>21</u>	<u>5</u>

Nescafe Gold Coffee - FINAL Categorisation of Free Associations.

Price	Pack Graphics/Design	Pack Linguistics/Text	Overall Quality	Quality of Ingredients	Functional Benefits	Non-F Benefits*	Miscellaneous
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Expensive	Nescafe name stands out	Gold	Slightly above average	(Smooth) Roast	Delicious, Satisfying	Comforting	Don't know, Haven't tried
Good price	(instant coffee)		Exceptional/Good quality	Natural, Unadulterated	Bitter, Smooth, Strong	Relaxing	Depends on size and price
Economical	Good/Smart packaging	<u>6</u>	Premium, Special coffee	Great/Special blend	Tasty, Tastes good	Stimulating	Chocolate, 43 beans
Cheap	Bland, Plain, Ugly		Better/High quality, Rich	Use the best beans	Smother taste	Revitalising	Attempt to get into hipster market
Affordable	Brown, Dark, Goldness	Parent Equity	Made as (back to) original	Top quality coffee beans	Nice aroma/smell	Awakening	My boss loves it
Over-priced	Great taste, nice packaging	<u>4</u>	Appealing, Need	Good/Well sized jar	Iced coffee, Milk	Share with friends	
Reasonable	Caramel colour stands out	Nestle - bad reputation	Not my choice	Better roasted beans	Moderate strength	Caring	
Worth the price	Labelling looks elegant	Nescafe (coffee)	Better Nescafe coffee	Not decaffeinated	Bad/Rich/Smother flavour	Over conversation	
	Colours work well together	Good brand	Gross, Yuck	Dark Gold	Refreshing		
	Beautiful, Classy	Well known brand	One of our preferred brands	Lid seals freshness in	Fast, Hot, Warm		
	Trying to make instant	In everyone's house	Exclusive, Top of the range	Granular, Granules	Easy, Indulgent (ing)		
	coffee seem better	Very good brand	Everyday must drink	What sort of Gold is it?	Better/Great/Nice tasting		
	Coffee bean/s	Most popular coffee	Luxurious	Not artificial	Enjoyable		
		All products delicious	Well liked	Caffeine	Plain coffee taste		
		Easily available	Favourite/Usual instant		Flavoursome coffee		
		Trusted brand	Not best but high quality		Convenient, Handy		
		Original, Innovative	Middle-of-the-road		Taste less		
		International	Nothing fancy		Can drink hot or cold		
		Old fashioned	Consistent quality		Perfect strength		
		Market leader	Can't do without/Must have		Not a bitter coffee		
			Like smell of real coffee		Love smell when opened		
			not instant coffee		Aromatic		
			Usually have in cupboard		Mellow, Warming		
			Don't drink unless no option		Cold morning, Wake up		
			Not for the coffee snob		Traditional coffee taste		
			On shopping list		Drink at home		
			Ground beans are nicer		Staying in bed, Evenings		
			Back to original tasting coffee		Last drink for the night		
			Can drink healthier options			* Non-functional benefits	
			Don't drink coffee				
<u>16</u>	<u>50</u>	<u>24</u>	<u>60</u>	<u>28</u>	<u>83</u>	<u>10</u>	<u>6</u>

Woolworths homebrand Ice Cream - FINAL Categorisation of Free Associations.

Price	Pack Graphics/Design	Pack Linguistics/Text	Overall Quality	Quality of Ingredients	Functional Benefits	Non-F Benefits*	Miscellaneous
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Cheap (price)	Looks cheap	Vanilla Ice Cream	Basic, Fake, Normal	Overly sweet	Chill, Cool, Smooth	Would not want	Market penetration
Economy	Red, white and blue colours	Lacking info	generic, homebrand	Artificial flavouring, Chemical	Artificial Taste, Watery	anyone to see in	Coles, Peters, Walls
Good price	Looks yummy		Low/Poor quality	Not (very) creamy	Tasty, Tastes good	my freezer	Better packaging than Coles
Economical	Boring, Plain, Ordinary, Simple		Ice cream not good	Creamy, Dairy	What's it taste like		brand
Budget price	Terrible, unattractive packaging		Only reasonable quality	Not natural, Over processed	Poor taste, Tasteless		Hungry
Not value for money	Bland, Dull, Uninviting		Would be better not to buy	High in fat	Caudy/Good flavour		
Good value for money	Stands out		Brands much better quality	Contains wax & other fillers	Unpleasant		
Affordable	Better if W closer to the blue		Cheaper/OK quality	Full of sugar	Refreshing		
Inexpensive	Ice cream looks delicious	<u>9</u>	Likely not to buy it	Bad texture	Convenient, Versatile		
Cost less	Red and blue now out-of-date		Supermarket brand	Not much cream, just sugar	Delicious, Sweet, Yummy		
Budget conscious	Easy to see	Parent Equity	Prefer premium ice cream	Ingredients not good quality	Fresh/Lovely/Nice taste		
Cheaper (est) brand	Old fashioned	<u>4</u>	Not bad, good stuff	Made in China	Not very tasty		
Bit on expensive side	Clear printing	Woolworths	Lesser/Lower quality	Cold, Freezing, Large crystals	Good everyday ice cream		
Waste of money	[Single flavour]	Popular	Horrible, Nasty	France	Good for you		
Cost effective for family		Woolworths own label	Average quality	Australian	Average taste		
No need to pay for pretty packaging		WW products not good	Won't make the grade	Made locally	Flavour not rich as some		
Bulk buy			Mass produced	No milk	Kids, Family		
Low rent/socioeconomic			Unappealing	Does it go watery/splintery	Not good for health		
			Ordinary, Poor substitute		Handy for milkshakes		
			Different		Consumable, Easy		
			Reliable		Bad aftertaste		
			Taking up space of good brands		Enjoyable, Pleasant		
			Select is probably better		Pancake		
			Life is too short to eat cheap		Good in summer		
					Useful for recipes		
					School fete		
						* Non-functional benefits	
<u>56</u>	<u>51</u>	<u>7</u>	<u>57</u>	<u>52</u>	<u>72</u>	<u>1</u>	<u>8</u>

Woolworths Select Ice Cream - FINAL Categorisation of Free Associations.

Price	Pack Graphics/Design	Pack Linguistics/Text	Overall Quality	Quality of Ingredients	Functional Benefits	Non-Functional Benefits	Miscellaneous
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Cheap	Looks appealing & tasty	Sounds tasty	Don't/Never buy it	High sugar content	Quality taste	Would not serve to guests	Coles brand - Select
Savings	Attractive package (ing)	Creamy, Extra Smooth	It's OK (quality)	Full/Nice flavour	Cooling, Melting, Soft	Dreaming	How many litres in this container
Reasonable	Nice (design)	Vanilla	Similar to Peters	High fat content	Sweet, Tasty		Not sure product size/quantity
Cheaper	Colours of packaging nice		Rich, Royal, Velvety	Artificial	Tastes vanilla		New, Now, Quantity
Good value	Looks delicious		Everyday	Poor quality ingredients	Sweets, Treat		Xmas ice cream cake
Inexpensive	Simple but eye catching		Generic but quality	Nice texture	Cool, Fresh		
Affordable	Bold, Original, White		Premium home brand	Preservatives	Fattening		
Value 4 money	Like the look	<u>51</u>	Average quality	Cold, Milky	Bland, Light, Weak		
Good price	Interesting		Don't shop at Woolworths	Wide range for everyday	Tasteful		
Low priced	Nice advertising		Love vanilla anything	Fructose, Sugar	Nice/Good taste		
Good buy	Creamy look	Parent Equity	Questionable quality	Corn syrup	Summer treat		
Medium price	Simple and direct imagery	<u>4</u>	Luxury, Premium	No real beans used	Easy to scoop		
Mid' range	Not too bad packaging	Woolworths (brand) quality	Boring, Icy, Traditional	Very creamy	Good for iced coffees		
Budget	Looks like a premium brand	Woolies brand/product	Would eat in one sitting	Expect quality and natural	Fresh Fruit		
Price	Love the colours chosen	Woolworths Select branded	It is a good product	ingredients	Caramel, Chocolate		
Affordability	Visual is good	Safeway	Prefer non supermarket	Not Aussie	Strawberry (ies) topping		
	Makes you want to buy/eat it	Don't shop at WW	Inferior/Semi quality	May be locally made	Alright for daily eating		
	Can taste the vanilla flavour		Nasty, Suspect quality	Other flavours	Good with nuts, topping		
	Looks creamy for home brand		Likely to be disappointing	Aussie	Delicious, Yummy		
	Looks premium		Want. Wish had in freezer		Makes kids happy		
	(ice cream)		Same as other ice creams		Good for kids		
	Easy to read		Take off of good brand		Indulgence		
			Recommend to others		Nice on hot day		
			Old fashioned taste				
			Better brand, Special				
			homebrand, no frills				
			supermarket brand				
			Would stay with trusted				
			Just very impressed				
			Reliable				
<u>36</u>	<u>34</u>	<u>12</u>	<u>59</u>	<u>30</u>	<u>57</u>	<u>2</u>	<u>9</u>

Bulla Real Dairy Ice Cream - FINAL Categorisation of Free Associations.

Price	Pack Graphics/Design	Pack Linguistics/Text	Overall Quality	Quality of Ingredients	Functional Benefits	Non-Functional Benefits	Miscellaneous
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Good value	Looks good, interesting	Real dairy	Normal/Real ice cream	Creamy, Cream rich	Good taste, Tasty	Nice for entertainment	Not familiar with it
Expensive	Looks delicious, yummy	No artificial colours/flavours	Fair, Good quality	Vanilla (pod)	Fattening	Relaxing	Cadbury, Peters
Cheap but good	Good with chocolate sauce	Gluten free	Luxurious/Luxury, Rich	Good/Vanilla flavour	Very Smooth, Soft		Never tried it before
Value	Chocolate (y)	est. 1910	True ice cream	Made with real ingredients	Nice and Creamy		Vanilla only?
Not too expensive	Colouring looks good	Made with real milk	Not the best taste	Variety of sizes	Delicious, Yummy		Brain-freeze, Extreme
Value for money	Love the chocolate topping	Fresh milk and cream	Creamy	Nice smell	Cool, Fresh, Refreshing		Don't know if ever purchased brand
	Chocolate over top inviting		Nice, Plain, Pleasant	Vallinary	Sweet		Could be same product in
	Good looking		Classy, Upper class	All Natural	Great for hot desserts		different packaging
	Chocolate and ice cream	<u>11</u>	Appealing	Low fat, Fat	Nourishing		Not sure how big/large container is
	Needs more colour		Tastes good	Nothing artificial	Health friendly		What format is it in
	Background is too bland	<u>Parent Equity</u>	Boring flavour	Thick	Goes with everything		
	Doesn't get your attention	<u>4</u>	Not as creamy as other	Sugar/Sugary	Choc, Chocolate sauce		
	Ice cream looks creamy white	Bulla real dairy	Don't buy these products	Airy/Fluffy	Pancakes		
	Attractive packaging	Good, Popular brand	Solid mid-range product	Milky	Reward, (Special) Treat		
	Looks creamy, tasty	Old Aussie product	Consistent quality	Cold, Icy, Freezer, Frozen	Dessert, (After) Dinner		
	Picture looks good	Known for milk products	Prestigious, Wealthy	Doesn't say if Australian	Family, Ideal for kids		
	Bland, boring	Established company	One of my favourites	Australian (made)	Children		
	(Assume it is) ice cream	Well known brand	Obnoxious		Indulgent		
	Not sure about picture, Is it a	Traditional - due to dairy	Premium		Fatty, Unhealthy		
	serving suggestion?	Family owned	Eat more/One more slice				
	Messages too small	Trusted	Not diabetic friendly				
		Get at any supermarket	My family love it				
		Quality brand	Decadent				
			Good for me				
			More generic				
			Predictable, Reliable				
<u>11</u>	<u>40</u>	<u>19</u>	<u>51</u>	<u>67</u>	<u>93</u>	<u>2</u>	<u>13</u>

Bulla Creamy Classics Ice Cream - FINAL Categorisation of Free Associations.

Price	Pack Graphics/Design	Pack Linguistics/Text	Overall Quality	Quality of Ingredients	Functional Benefits	Non-F Benefits*	Miscellaneous
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Good Value	Looks creamy, delicious	Creamy, Classic	One of better quality	Soft, Dense, Thick	Nice and smooth	Relaxing	Hot
Inexpensive	Classy	Vanilla	Nice, Rich	Natural, Pure	Creamy taste, Tasty	Soothing	Cream cheese
Worth the money	Smart packaging	Dairy	Lesser quality	Australian (Made)	Delicious, Yummy	Makes you feel better, if	FALSE
Expensive	Clean, Plain, Simple	Ice Cream	Premium	More flavours	Indulgent, Treat	you're feeling low	
Good price	Ice cream stands out		Good/Great/High quality	Full of fat	Flavoursome, Sweet	Comforting	
Little more expensive	Awful container		Old fashioned is creamier	Full of sugar	Family, Kids like it	Avoid, Guilt	
Expensive but worth it	Red back ground distracts		Horrible	Very/Super creamy	Good taste		
Above average price	Package catches my eye	<u>66</u>	Beautiful, Tempting	Extra/Full cream	Cool, Refreshing		
5 Dollars	Good packaging		Excellent/Fantastic quality	Good quality ingredients	Easy		
Pricy	Looks great		Can not stop eating	Gluten free	Fresh, Real lasting		
		Parent Equity	Love it, Love it	Good full cream milk	Classic/Great taste		
		<u>4</u>	Reliable, Standard	Good/Lovely texture	Dessert, Snack		
		Well known brand	Wonderful	Full-bodied	Delightful, Enjoyable		
		Readily available		Good Flavour	Too sweet for me		
		Been around for ages		Smells good	Fattening, Fatty		
		Been in business long time		Not real	Chocolate topping		
		Original, Traditional		Cold, Frozen, Icy	Decadent		
		Trusted, Trusting		Not local brand	Moreish, Satisfying		
		Bulla ice cream			Great for everyone		
		Favourite, Popular			Goes very quickly		
		Their products always			Like it just on its own		
		taste fresh					
		Family love this brand					
		Been around since I was					
		a kid					
		Around for a long time					
						* Non-functional benefits	
<u>16</u>	<u>17</u>	<u>21</u>	<u>40</u>	<u>46</u>	<u>98</u>	<u>7</u>	<u>3</u>

Woolworths Select Aloe Vera Tissues - FINAL Categorisation of Free Associations.

Price	Pack Graphics/Design	Pack Linguistics/Text	Overall Quality	Quality of Ingredients	Functional Benefits	Non-Functional Benefits	Miscellaneous
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
If on Special	Looks good	Soft/Soft tissue	Over-rated	Thick	Specific purpose	Soothing	I buy man-size only
Cheap	Like packaging	Aloe/Aloe Vera	Nasty, Yuck	Nice scent/smell	Asthma, Hayfever	Calming	size, misunderstood
Cheaper than	Classic	White	Like they have AV	Good thickness	Good for everyday	Protection	less in quantity
Hope cheap	Attractive packaging	3 Ply	Soft makes it sound good	Thin/Too thin	Absorbent, Effective	Embarassed to offer Visitors	disarray, extra, profiled
Inexpensive	Clean, Simple	Select	Would look nice in home	Has Aloe Vera	Good for colds	Caring	squeezing out other brands
Value 4 money	Soft gentle colour scheme		Average/Good quality	OK Texture	Good for face	Kind	organe? find a bin!
Affordable	Basic not flashy		Cheap and nasty	Nice'n soft, Softness	Cool, Easy		
Economical	Bland, Boring, Old	<u>46</u>	Good enough to use	Not soft	Smooth		
Budget	Like the box		Essential, Normal	Good/Great smell	Practical, Useful		
So cheap ...	Fresh, Vibrant		Cheap/poor quality	Abrasive, Hard, Rough	Wipe noses		
Not value ...	Simple, direct pack design	Parent Equity	Probably inferior quality	Infused	Clean glasses		
Mid' range	Nice colours on box	<u>4</u>	Other brands better Q	Cushiony/Plush	Make-up helper		
Reasonably P	Like front of box	Woolworths	Reliable/Quality brand	Won't be that soft	Gentle, Sensitive		
Low Cost	Hideos pack colour	Woolworths Quality	Greater strength appeals	Strong 3 ply	Durable		
Not too costly	Plain but OK packaging	Woolies brand/product	Suspect quality	Don't need to double	Scratchy		
Cost	Easy to read	Woolworths brand	3 Ply a plus	Not unscented	Soft on nose		
Value		Never shop at WW	Would buy	Nice fragrance	Probably blow a hole		
Price		Don't like WW	Dependable	Environmentally Friendly	Hurt when cold in nose		
Value for money			Reasonable quality	Easy open box	Nice to use		
If price is right, cheaper			OK		Household use		
			Good quality low cost				
			Would need to try ...				
			Tissues are tissues				
			Generic/no frills, store brand				
			AV is a scam				
			Better than WW homebrand				
			homebrand/s'market brand				
			Similar to Kleenex				
<u>35</u>	<u>29</u>	<u>8</u>	<u>61</u>	<u>48</u>	<u>35</u>	<u>14</u>	<u>9</u>

Sorbent Everyday Tissues - FINAL Categorisation of Free Associations.

Price	Pack Graphics/Design	Pack Linguistics/Text	Overall Quality	Quality of Ingredients	Functional Benefits	Non-F Benefits*	Miscellaneous
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Good Value	Nice boxes, OK box	Soft, White, Tissues	Ordinary, Standard	Fluffy, Soft, Strong, Thick	Pleasant, Soft to touch	Calm (ing)	Friendly
Cheap (er)	Don't like box layout	Flip Open	Reasonable quality	Environmentally questionable	Delicate, Soft feeling	Soothing	Coles, Woolworths
Price a bit higher	Bold, Sophisticated, Exquisite	Everyday	Good/Great quality	Australian	Easy to use/carry		Quantity
Expensive	Colourful, Pretty designs		Normal, Reliable	Good/Easy opening box	Always needed		Seen it in shops
Economical	Looks soft and easy to use		Fair, Middle of road	Smells good	Convenient, Handy		Rarely buy tissues
	Stripes are unappealing		Luxurious, Prestige	Various sized boxes to buy	Gentle, Smooth		Have not purchased before
	Like colour (s) of the box		Mum's type of tissue	Probably 2 Ply	General use, Useful		Don't like slogan
	Too plain, Simple	<u>70</u>	Nice, Not fancy	No softening aloe vera	Nice to use on nose		How many tissues in box?
	Blue, Green, Nice colour (s)		Does look no frills	Not sure how soft	Clean, Durable, Safe		Good foundation
	Green suggests low cost		Average tissues	Not sure what Ply	For all people, baby		Napkins
	Aesthetics, Good looking	Parent Equity.	Rich, Upper class		Freshness		
	Looks like good quality tissue	<u>4</u>	Wealth orientated		Sneezing, Snuffly nose		
	Wrong colours	Old style brand	Better than cheaper ones		Tear absorber		
		Well known brand	Can't be without one		Compact		
		Popular brand	Not special		Wipe off make-up		
		Strong brand	Essential, Needed		Cleansing, Cleanliness		
		Good brand	Appealing, Love it		Kids like it, Mum		
		Known for paper toiletries	Elegant		Everyday use		
		Sorbent - recognised brand	Only buy Kleenex		Cold season		
		Reputable, Trusted	Rarely buy tissues		Doubles as Toilet Paper		
		Can get at any supermarket					
		Well established					
		Traditional					
		Long standing					
						* Non-functional benefits	
<u>14</u>	<u>26</u>	<u>23</u>	<u>47</u>	<u>22</u>	<u>69</u>	<u>2</u>	<u>14</u>

Sorbent Aloe Vera Tissues - FINAL Categorisation of Free Associations.

<u>Price</u>	<u>Pack Graphics/Design</u>	<u>Pack Linguistics/Text</u>	<u>Overall Quality</u>	<u>Quality of Ingredients</u>	<u>Functional Benefits</u>	<u>Non-Functional Benefits</u>	<u>Miscellaneous</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Too dear	Fancy	Aloe Vera, Vitamin E	Good product	Soft/So soft	Easy to use/Useful	Rejuvenate	Soap
Expensive	Nice colour	Protect (ing)/Protection	Not my preferred brand	Greasy	Soft on nose	Comfortable/Comforting	New product
Economical	Style	Soothe/Soothing	Not necessary	Skin moisturiser	Can help when get flu	Love to use on grandkids	Not used this product
Value	Classy		Good Quality	Pleasant/Nice smell (ing)	Healthy		Unsure what product is
Waste of Money	Luxurious/Luxury		Different to others	Soft scent	Gentle, Smooth		Hand and body cream
Cheap	Attractive packaging		Gimmick	Soft smooth	Nice and soft		Have seen it in store
Worth it	Yellow		Good for you, Need	Thick	Good for colds		Haven't seen this product
Reasonable	Colouring is subtle	<u>33</u>	Not enticing	Hygienic	Good for hay/fever		Soft cuddly puppies
Premium	Bubble pattern is nice		I wouldn't buy	Strong	Gentle on nose		
	Ugly packaging		Personal preference	Aloe Vera scent	Looks after nose		
	Pack design is good	<u>Parent Equity</u>	Second choice	Good smell	Pleasant		
	Looks good	<u>4</u>	Over-engineered	Fragrance/Fragrant	Clean, Wiping		
	Mellow	One of the best	Waste of resources	Scented, Smelly	Head cold		
	Branding is clear	Sorbent tissues	Good innovative product	Delicate fragrance	Doesn't feel like		
	[tissues]	Well known brand	Just like white tissues	Nice aroma	sandpaper		
		Trusting/Trustworthy	Reliable	Hypo-allergenic	Good on your skin		
		Made by Sorbent	Premium brand	Small sheet size	Will not abrase nose		
		Trusted brand		Vitamin E for what?	Medicinal benefit		
		Good brand		Aloe Vera for what?	Convenient		
		Familiar		Impregnated with AV	Good for you		
		Know brand of toilet tissues			Good for sensitive noses		
		Product leader			Soothing to sore nose		
		Favourite			Safe		
		Family favourite			Good for whole family		
		Brand name			Skin loves it		
					Drippy nose		
					Sick, Winter, Family		
<u>13</u>	<u>25</u>	<u>22</u>	<u>35</u>	<u>76</u>	<u>58</u>	<u>6</u>	<u>9</u>

Coles Total Care Toothpaste - FINAL Categorisation of Free Associations.

Price	Pack Graphics/Visuals	Pack Linguistics/Copy	Overall Quality	Quality of Ingredients	Functional Benefits	Non-F Benefits*	Miscellaneous
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Cheap (er)	Attractive package (et)	Toothpaste	Prefer Colgate or Oral B	Powerful	Healthy, Hygiene	[Nil]	Have dentures don't buy toothpaste
Lower price	Nice colour packaging	Has fluoride	generic, homebrand, no frills	ADA/Dentists approved it	Cool, Clean, Shiny		Similar to Oral B packaging
Reasonably priced	Looks like crap	Total Care	Nice, Good for a change	Australian Made/Aussie	Good for teeth, No holes		Available, New, Never seen, Unfamiliar
Value for Money	Looks too homebrand	Protects teeth and gums	Would not select just to save	Mint (y)	All rounder		What size is the tube?
Value for Price	Packaging a bit dull, pale, plain	from decay and plaque	Sensible, Standard	Chemicals	For family use. Me		Should be like the product I currently
Good price	Bright, Crisp	Multi-Action/Purpose/Use	As good as branded product	What are active ingredients?	Not effective enough		use - Sensodyne
Like paying less	Like the look of the box	Fights cavities	Nasty, Not very appealing	Important to check ingredients	Has a minty taste		Wonder if anyone buys it
Savings, Cost	Very blue, Vibrant colour	Bad breath	Good/Great/OK quality	Not recommended by dentists	Range of dental issues		Do they have kid's range?
Inexpensive	Not professional	Remove stains	Imitation toothpaste	Probably cheap through	Total Protection		
Affordable	Looks cheap	ADA	Wouldn't buy it	cheap labour or low	Effective, Worthwhile		
Budget	Very conservative pack design		Average quality, Fair	quality products	Unhealthy		
Low cost	Easy to read		Spend too much on teeth to		Fresh, Breath/Taste		
Not too expensive		<u>29</u>	use supermarket brand		Whitening, Sparkles (ing)		
			Inferior product		Everyday		
			Toothpastes are all similar		No good for your teeth		
		Parent Equity	Mid' range		Easy to use		
		<u>4</u>	Have a favourite brand already		Refreshing		
		Coles brand	Prefer name brands		Brush twice per day		
		Coles have good stuff cheap	Would be willing to try it		Kills germs		
		Would not trust	Wouldn't compromise for teeth		Horrible taste		
			Different, Unproven		Does what it says		
			Decent, Good alternative		Tartar control		
			Generally does not appeal		Polished		
			Hope it's as good as Colgate				
			Claims to be good				
						* Non-functional benefits	
<u>40</u>	<u>20</u>	<u>12</u>	<u>65</u>	<u>16</u>	<u>63</u>	<u>0</u>	<u>9</u>

Colgate Multi-Cavity Protection Toothpaste - FINAL Categorisation of Free Associations.

<u>Price</u>		<u>Pack Graphics/Design</u>	<u>Pack Linguistics/Text</u>	<u>Overall Quality</u>	<u>Quality of Ingredients</u>	<u>Functional Benefits</u>	<u>Non-F Benefits*</u>	<u>Miscellaneous</u>
<u>1</u>		<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Good Value		Blue	Total Protection	Basic, Normal, Regular	Artificial sweeteners	Cleans teeth	Fun	Sensodyne, Sensitive teeth
Good for Money		Familiar corporate colours	Maximum Cavity Protection	Good Quality	Artificial colours	Makes teeth white		New toothpaste
Cheap		Like highlighted MCP details	Toothpaste	Good product	Smooth (not lumpy)	Cleans whole mouth		Dentist
Reasonable Price		Bright, easy to find on shelf	Calcium	Only brand I use	Minty	Feel fresh, Refreshing		Marketing driven
Expensive		Gets your attention	Fresh breath	Nice, Like it	Added calcium	Good for your teeth		Have to use sensitive toothpaste now
Good for Less		Boring, Simple packaging	Strengthens teeth	Nothing gimmicky	Nice smell	Decreases decay		Colgate sensitive toothpaste is pretty good
Good Priced		Colourful, Interesting	Fluoride	Top quality brand	Good/Regular flavour	Reduces fillings		Carbonated drinks
Medium Price		Will stand out from others		One of the better brands	Not much minty flavour	Brush/Brushing Twice a Day		Goal orientated
Overpriced		Professional	<u>24</u>	Fair, Reliable	Australian	All ages, everyone		Gargle Listerine
OK Price Range		Easily recognised product		Mass market	Not Australian made	Looks after your teeth		Electric tooth brush
Not too expensive		Big letters	<u>Parent Equity</u>	Ordinary	Contains fluoride	Nice/Pleasant taste (ing)		
			<u>4</u>	Used to use Colgate	Doesn't have whitening agent	Easy to dispense		
			Old brand/company	Purchase in round pump		Flavour of its own		
			Brand I trust, Trustworthy	Above basic product	Good size	Bed time		
			Familiar/Well known brand	Like all the others	American	Not bad taste		
			Most popular brand	Not my preference	Why fluoride?	Good all-round toothpaste		
			Colgate is a popular brand	Fair, OK as a fill-in		Safe, Soothing		
			Original, Famous brand	Necessary		Kids like it, not too strong		
			Established product			Does the job		
			Good quality products			Insurance, Preventative		
			Number 1, Top brand			Odour control		
			Been around a long time			Hated by children		
			Traditional			Everyday Use		
			Well recognised brand					
			Reputable, Trusted					
			Credible					
			Available everywhere					
			Household name					
			Lots of products in brand				* Non-functional benefits	
<u>20</u>		<u>12</u>	<u>54</u>	<u>42</u>	<u>24</u>	<u>102</u>	<u>1</u>	<u>14</u>

Colgate Total Toothpaste - FINAL Categorisation of Free Associations.

Price	Pack Graphics/Design	Pack Linguistics/Text	Overall Quality	Quality of Ingredients	Functional Benefits	Non-F Benefits*	Miscellaneous
<u>1</u>	<u>2</u>	<u>3</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
Good buy	White	Fluoride, Toothpaste	One of better toothpastes	Too sweet	Clean, Fresh breath	Comfort	Active, Cold, Hot, Home, Paste
Buy on special	Plain labelling	Total Care, 12 hour protect	Prefer stronger taste	Antibacterial	Prevents gum disease		
Price	Neat	[Total protection for teeth]	Not for sensitive teeth	Nice smell	Cavity protection		
Under 4\$	Bright packaging	Healthy, Healthy mouth	Good/High Quality	No sugar	Cool, Refreshing, Smile		
Affordable	Good packaging	[Lasting protection]	Good protection	Minty (flavour)	Complete aspects of care		
Reasonable price	Interesting pack (aging)	Original	Works (well)	Has everything needed	Helps keep away plaque		
Cheaper	12 hour protection banner		Good product	Great flavour	Prevents tooth decay		
Good price	doesn't stand out, not clear		Always buy one that whitens	Not peppermint only plain	Safe, Smooth, Shiny		
Expensive	Box is very busy	<u>31</u>	Best (toothpaste)	Dentist (approved)	Dental Care/Health		
	Like the design		Usual toothpaste hype	Dentist's recommendation	Nice minty after-taste		
	Symbol make me think it's a complete care pack	<u>Parent Equity</u>	Run of the mill	Dentist recommended	Kills/Stops the germs		
	Looks professional	<u>4</u>	Advanced	Manufactured overseas	Minty freshness		
	Classy	Colgate toothpaste	Don't like texture	Strong, Not harsh	Looks after my teeth		
		Good/Top brand	Use it myself	Made in Thailand	All-round protection		
		Familiar, Well known	Good for your teeth	Not Australian made	Not very smooth		
		It's been here forever	Use it every day		Good/Great taste		
		Trustworthy	Exciting		Whitens/brightens teeth		
		Product leader	Home standard		Use in the morning		
		Recognised brand	Reliable		Keeps working after brushing		
		In everyone's bathroom			Not sure it lasts 12hrs		
		Old brand, Traditional			Total fresh all day		
		Reputable, Trusted			Helps with tartar control		
		Popular, Proven			Gentle, Pleasant to use		
		Quality brand			Functional, Easy to use		
		Tested and tried			Suits many people		
		Old fashioned (brand)			Gives you clean mouth		
		Recommended brand			Gives long protection		
		Best among toothpastes			Enjoyable to use		
		Original, Innovative			Hygienic	* Non-functional benefits	
					Fresh feeling		
<u>10</u>	<u>19</u>	<u>48</u>	<u>42</u>	<u>30</u>	<u>131</u>	<u>1</u>	<u>7</u>

Appendix 3

Simple ANOVA Analysis – ‘Familiar’ Results

Study 2

Simple ANOVA Analysis – ‘Familiar’ Results

Study 2

1. Overview

In order to assess whether a shopper’s knowledge or familiarity with the brands in the choice set might influence the basic effects and predictions of the brand gravity model, the following results have been extracted from a re-analysis of the data from *Study 2*. For each of the focal brands in each of the conditions, respondents were asked: “Are you familiar with the (*brand name*) brand?” using a dichotomous yes/no response scale. This dichotomous variable was included as a factor in four univariate ANOVAs. Only univariate, not multivariate, analyses were undertaken, since focal brand familiarity differed from one product category to the next for many of the participants. In each ANOVA, price/quality perception was the dependent variable.

2. Univariate results

a) For coffee products, in addition to the previously reported main effects of price point ($F [1,303] = 12.00, p < .001$), and brand type ($F [1,303] = 37.21, p < .0001$), there was a main effect of familiarity ($F [1,303] = 11.35, p < .001$). Participants who were familiar with the focal coffee brand had more favourable perceptions of it ($M = 4.45$) than participants who reported being unfamiliar with the brand ($M = 3.17$).

In addition to the previously reported price point x brand type interaction ($F [1, 303] = 4.90, p < .05$), there was a price point x brand type x familiarity interaction effect ($F [1, 303] = 5.87, p < .05$). The pattern of means suggests that the tendency to perceive price/quality differences between NBH and NBL brands emerged only for participants who were familiar

with the focal brand ($M = 5.16$ versus 4.31 for NBH versus NBL, respectively). Participants who reported being unfamiliar with the focal brand perceived little or no difference between these two NB variants ($M = 4.21$ versus 4.60 for NBH versus NBL, respectively). Brand familiarity had little or no influence on the perception of SBLs versus SBHs.

None of the other effects in the model were significant.

b) For ice cream products, in addition to the previously reported main effects of price point ($F [1,304] = 28.17, p < .0001$), and brand type ($F [1,304] = 99.32, p < .0001$), there was a main effect of familiarity ($F [1,304] = 7.64, p < .01$). Participants who were familiar with the focal ice cream brand had more favourable perceptions of it ($M = 4.56$) than participants who reported being unfamiliar with the brand ($M = 4.08$).

The previously reported price point x brand type interaction ($F [1, 304] = 22.03, p < .0001$) remained significant, but none of the other effects in the model were significant.

c) For tissue products, in addition to the previously reported main effects of price point ($F [1,304] = 43.74, p < .0001$), and brand type ($F [1,304] = 148.22, p < .0001$), there was a main effect of familiarity ($F [1,304] = 10.05, p < .005$). Participants who were familiar with the focal tissue brand had more favourable perceptions of it ($M = 4.32$) than participants who reported being unfamiliar with the brand ($M = 3.81$).

In addition to the previously reported price point x brand type interaction ($F [1, 304] = 4.81, p < .05$), there was a brand type x familiarity interaction effect ($F [1, 304] = 5.04, p < .05$). The pattern of means suggests that the tendency to perceive price/quality differences between SBs versus NBs was more pronounced for participants who were unfamiliar with the focal brand ($M = 4.90$ versus 2.90 for NBs versus SBs, respectively). Participants who

reported being familiar with the focal brand also perceived a price/quality difference, but the effect was not as pronounced ($M = 4.97$ versus 3.57 for NBs versus SBs, respectively).

None of the other effects in the model were significant.

d) For toothpaste products, in addition to the previously reported main effects of price point ($F [1,304] = 9.93$ $p < .005$), and brand type ($F [1,304] = 64.26$, $p < .0001$), there was a main effect of familiarity ($F [1,304] = 14.78$, $p < .0001$). Participants who were familiar with the focal toothpaste brand had more favourable perceptions of it ($M = 4.75$) than participants who reported being unfamiliar with the brand ($M = 3.04$).

The previously reported price point x brand type interaction ($F [1, 304] = 11.83$, $p < .001$) remained significant, but none of the other effects in the model were significant.

3. Conclusion

For two of the four product categories, ice creams and toothpastes, participants' familiarity with the focal brand had little or no influence on the interaction effects associated with the brand gravity model. For coffees, the price point x brand type x familiarity interaction effect was significant and the pattern of the means is interesting. The tendency to perceive price/quality differences between NBH and NBL brands emerged only for participants who were familiar with the focal brand. Participants who reported being unfamiliar with the focal brand perceived little or no difference between these two NB variants.

Hence, the small or non-significant differences between NBH and NBL brands reported in Study 2 was probably driven by participants who were unfamiliar with the focal brands. If only familiar participants had been included in the analysis, this difference may have been more pronounced. However, since none of the interaction effects involving both

display type and brand familiarity were significant, it is unlikely that the latter influenced the results for Hypotheses 1 – 4.

Perhaps the most interesting result of including brand familiarity in the analyses pertains to the tissue product category. Here, the brand type x familiarity interaction effect was significant and the pattern of means suggests that the tendency to perceive price/quality differences between SBs versus NBs was more pronounced for participants who were unfamiliar with the focal brand. Participants who reported being familiar with the focal brand also perceived a price/quality difference, but the effect was not as pronounced.

This suggests that for consumers with little knowledge or expertise in a product category, the ‘NBs are better than SBs’ heuristic may drive price/quality perceptions in the entire category. Supporting this interpretation is the result that much of this effect is due to unfamiliar participants rating the SBs significantly more negatively ($M = 2.90$) than participants familiar with the focal brand ($M = 3.57$; $p < .05$). This suggests that consumers relatively unfamiliar with a product category may still hold the view that SBs are not very good and compete mainly in terms of a lowest price positioning. More knowledgeable consumers may have abandoned this simple heuristic in evaluating SBs.

However, once again, since none of the interaction effects involving both display type and brand familiarity were significant, it is unlikely that the latter influenced the results for Hypotheses 1 – 4.

Appendix 4

MGSM Ethics Sub-Committee – Approval

(Ref: 5201300823)

Teamjest Pty Ltd

From: Charles Areni <charles.arenim@mgsm.edu.au>
Sent: Monday, 18 November 2013 4:10 PM
To: teamjest@bigpond.com
Subject: Fwd: Approved

Wooo hooo! Let's get busy!

Professor Charles Areni
Associate Dean (Research)
MGSM North Ryde Campus
Macquarie University
NSW 2109 Australia

Tel: +61 2 9850 9085
Fax: +61 2 9850 8630

----- Forwarded message -----

From: **Stefanie Jreige** <stefanie.jreige@mgsm.edu.au>
Date: Mon, Nov 18, 2013 at 12:36 PM
Subject: Approved
To: Charles.Arenim@mgsm.edu.au
Cc: ethics@mgsm.edu.au

RE: Ethics Application - Final Approval

Send to: Chief investigator

RE: Ethics Application Ref: - Final Approval -

Dear Professor Areni

RE: 'Line extensions, brand extensions and brand gravity: Under what conditions can a single brand compete at multiple price points?' (Ref: 5201300823)

The above application was reviewed by the MGSM Ethics Sub-Committee. The MGSM Ethics Sub-Committee wishes to thank you for your well-written application. Approval of this application has been granted, effective 18/11/ 2013. This approval constitutes ethical approval only.

This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site:

http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/e72.pdf.

The following personnel are authorised to conduct this research:

Chief Investigator: Professor Charles Areni

NB. STUDENTS: IT IS YOUR RESPONSIBILITY TO KEEP A COPY OF THIS APPROVAL EMAIL TO SUBMIT WITH YOUR THESIS.

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).
2. Approval will be for a period of five (5) years subject to the provision of annual reports.

Progress Report 1 Due: 18/11/ 2014

Progress Report 2 Due: 18/11/ 2015

Progress Report 3 Due: 18/11/ 2016

Progress Report 4 Due: 18/11/ 2017

Final Report Due: 18/11/ 2018

NB. If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. If the project has been discontinued or not commenced for any reason, you are also required to submit a Final Report for the project.

Progress reports and Final Reports are available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

3. If the project has run for more than five (5) years you cannot renew approval for the project. You will need to complete and submit a Final Report and submit a new application for the project. (The five year limit on renewal of approvals allows the Committee to fully re-review research in an environment where legislation, guidelines and requirements are continually changing, for example, new child protection and privacy laws).

4. All amendments to the project must be reviewed and approved by the Committee before implementation. Please complete and submit a Request for Amendment Form available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

5. Please notify the Committee immediately in the event of any adverse effects on participants or of any unforeseen events that affect the continued ethical acceptability of the project.

6. At all times you are responsible for the ethical conduct of your research in accordance with the guidelines established by the University. This information is available at the following websites:

<http://www.mq.edu.au/policy/>

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/

human research ethics/policy

If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of this email as soon as possible. Internal and External funding agencies will not be informed that you have final approval for your project and funds will not be released until the Research Grants Management Assistant has received a copy of this email.

If you need to provide a hard copy letter of Final Approval to an external organisation as evidence that you have Final Approval, please do not hesitate to contact the FHS Ethics at the address below.

Please retain a copy of this email as this is your official notification of final ethics approval.

Yours sincerely,

Chair
MGSM Ethics Sub-Committee

Email: ethics@mgsm.edu.au

Web: <http://www.research.mq.edu.au/>

Appendix 5

Key References

Key References

- Aaker, D. A. (1996). Measuring brand equity across products and markets. *California Management Review*, 38 (3), 102-120.
- Aaker, D.A. (2004). *Brand Portfolio Strategy*. Free Press, 1st Edition, USA.
- Aaker, D.A., & Keller, K. L. (1990). Consumer evaluations of brand extensions. *Journal of Marketing*, 54, 27-41.
- Ailawadi, K. L., Neslin, S. N., & Gedenk, K. (2001). Pursuing the value-conscious consumer: store brands versus national brand promotions. *Journal of Marketing*, 65 (January), 71-89.
- Ailawadi, K.L. & Keller, K.L. (2004). Understanding retail branding: conceptual insights and research priorities. *Journal of Retailing*, 80, 331-342.
- Ailawadi, K.L., Pauwels, K. & Steenkamp, J-B, E.M. (2008). Private-label use and store loyalty. *Journal of Marketing*, 72, 19-30.
- Alba, J.W. & Wesley Hutchinson, J. (1987). Dimensions of consumer expertise. *Journal of Consumer Research*, 13, 411-454.
- Anderson, J. R. (1991), "The adaptive nature of human categorization", *Psychological Review*, 98 (3), pp. 409-429.
- Apelbaum, E., Gerstner, E., & Naik, P.A. (2003). The effects of expert quality evaluations versus brand name on price premiums. *Journal of Product & Brand Management*, 12 (3), 154-165.
- Areni, C.S., Duhan, D.F., & Kiecker, P. (1999). Point-of-purchase displays, product organization, and brand purchase likelihoods. *Journal of the Academy of Marketing Science*, 27 (4), 428-441.

Beneke, J. (2010). Consumer perceptions of private label brands within the retail grocery sector of South Africa. *African Journal of Business Management*, 4 (2), 203-220.

Boatwright, P. & Nunes, J.C. (2001). Reducing assortment: an attribute-based approach. *Journal of Marketing*, 65, 5-63.

Boatwright, P. & Nunes, J.C. (2004). Correction to: Reducing assortment: an attribute-based approach. *Journal of Marketing*, 68, (July).

Bottomley, P. A., & Holden, S. J. S. (2001). Do we really know how consumers evaluate brand extensions? Empirical generalizations based on secondary analysis of eight studies. *Journal of Marketing Research*. 38 (4), 494-500.

Bovee, C. L., Houston, M. J., & Thill, J. V. (1995). *Marketing* (McGraw Hill Series in Marketing), McGraw-Hill College, 1st Edition, USA.

Broniarczyk, S.M., & Alba, J. W. (1994). The importance of brand in brand extension. *Journal of Marketing Research*, 31, 214-228.

Broniarczyk, S.M., Hoyer, W.D., & McAlister, L. (1998). Consumers' perceptions of the assortment offered in a grocery category: The impact of reduction. *Journal of Marketing Research*, 35, 166-176.

Buchanan, L., Simmons, C., J., & Bickart, B.A. (1999). Brand equity dilution: retailer display and context brand effects. *Journal of Marketing Research*, 36, 345-355.

Burt, S., Davis, S. (1999). Follow my leader? Lookalike retailer brands in non-manufacturer-dominated markets in the UK. *The International Review of Retail, Distribution and Consumer Research*, 9 (2), 163-185.

Carpenter, G., & Nakamoto, K. (1989). Consumer preference formation and pioneering advantage. *Journal of Marketing Research*, 26 (August), 285-298.

- Chaney, I. M., & Holloway, R. (2004). Own-label in the UK grocery market. *International Journal of Wine Marketing*, 16 (3), 5-13.
- Chen, A. Cheng-Hsui. (2001). Using free association to examine the relationship between the characteristics of brand associations and brand equity. *Journal of Product & Brand Management*, 10 (7), 439-451.
- Chernev, A. (2005). Feature complementarity and assortment in choice. *Journal of Consumer Research*, 31 (2), 748-759.
- Coles Online Research (2013). Coles cuts prices again as families seek bigger savings in 2013. *National online study* conducted in January.
- Collins-Dodd, C., & Lindley, T. (2003). Store brands and retail differentiation: the influence of store image and store brand attitude on store own brand perceptions”, *Journal of Retailing & Consumer Services*, 10, 345-352.
- Dameron, K. (1939). The consumer movement. *Harvard Business Review*. 17 (3), 271-289.
- Dawes, J., & Nenycz-Thiel, M. (2013). Analyzing the intensity of private label competition across retailers. *Journal of Business Research*, 66, 60-66.
- Desai, K. K., & Ratneswar, S. (2003). Consumer perceptions of product variants positioned on atypical attributes. *Journal of the Academy of Marketing Science*, 31 (1), 22-35.
- Dick, A. S., Jain, A. K., & Richardson, P. S. (1996). How consumers evaluate store brands. *Journal of Product & Brand Management*, 5 (2), 19-28.
- Erdem, T. (1998). An empirical analysis of umbrella branding. *Journal of Marketing Research*, 35 (August), 339-351.

- Erdem, T., Chang, Ryung, Chang (2012), A cross-category and cross-country analysis of umbrella branding for national and store brands. *Journal of the Academy of Marketing Science*, 40, 86-101.
- Erdem, T., Keane, Michael, P. (2008), & Sun, B. A dynamic model of brand choice when price and advertising signal product quality, *Marketing Science*, 27 (6), 1111-1125.
- Fernie, J., & Pierrel, F.R.A. (1996). Own branding in UK and French grocery markets. *Journal of Product & Brand Management*, 5 (3), 48-59.
- Fitzsimons, G. J. (2000). Consumer response to stockouts. *Journal of Consumer Research*, 27 (2), 22-36.
- Fornari, E., Grandi, S. & Fornari, D. (2011). Effects of intrabrand competition between private labels and manufacturer brands: *Empirical results from the Italian market. International Review of Retail, Distribution and Consumer Research*, 21, 541-554.
- Ghauri, P., & Gronhaug, K. (2010). *Research Methods in Business Studies*, Prentice Hall, 4th Edition, England.
- Geyskens, I., Gielens, K., & Gijsbrechts, E. (2010). Proliferating private-label portfolios: how introducing economy and premium private labels influences brand choice. *Journal of Marketing Research*, 67, 791-807.
- Gielens, K. (2012). New products: The antidote to private label growth? *Journal of Marketing Research*, 49 (June), 408-423.
- Gijsbrechts, E., Campo, K., & Goossens, T. (2003). The impact of store flyers on store traffic and store sales: a geo-marketing approach. *Journal of Retailing*, 79, 1-16.

- Gijsbrechts, E., Campo, K., & Nisol, P. (2008). Beyond promotion-based store switching: antecedents and patterns of systematic multiple-store shopping. *International Journal of Research in Marketing*, 25, 5-21.
- Grewal, D., Krishnan, R., Baker, J., & Borin, N. (1998). The effect of store name, brand name and price discounts on consumers' evaluations and purchase intentions. *Journal of Retailing*, 74 (3), 331-352.
- Hair Jr., Joseph, F., Black, William, C., Babin, Barry, J., Anderson, Rolph, E. (2014). *Multivariate Data Analysis*, 7th International edition, Pearson Education Ltd.
- Hoch, S.J., Bradlow, E.T., & Wasink, B. (1999). The variety of an assortment. *Marketing Science*, 18 (4), 527-546.
- Hoch, S.J., Bradlow, E.T., & Wasink, B. (2002). Rejoinder to "The variety of an assortment: an extension to the attribute-based approach". *Marketing Science*, 21 (3), 342-346.
- Huber, J., Payne, J.W., & Puto, C. (1982). Adding asymmetrically dominated alternatives: violations of regularity and the similarity hypothesis. *Journal of Consumer Research*, 9 (1), 90-98.
- Huber, J., & Puto, C. (1983). Market boundaries and product choice: illustrating attractiveness and substitution effects. *Journal of Consumer Research*, 10 (1), 31-44.
- IBISWorld, Australia's appetite for private labels set to grow, *Special Report*, August 2010.
- IPA, the professional body for UK marketing communications agencies. *2014 IPA Effectiveness Awards Winners Online Announcement*, 29th October 2014, www.ipa.co.uk/news.
- Jacobson, R., & Aaker, D. A. (1987). The strategic role of product quality. *Journal of Marketing*, 51 (4), 31-44.

Jensen, B. B., & Grunert, K. G. (2014). Price knowledge during grocery shopping: what we learn and what we forget. *Journal of Retailing*, 90 (3), 332-346.

Kahn, B. E. (1998). Dynamic relationships with customers: high-variety strategies. *Journal of the Academy of Marketing Science*, 26 (1), 45-53.

Keller, K. L. (2003). Brand synthesis: the multidimensionality of brand knowledge. *Journal of Consumer Research*. 29, 595-600.

Keller, K. L., & Aaker, D. A. (1992). The effects of sequential introduction of brand extensions. *Journal of Marketing Research*, 29, 35-50.

Kim, C. K., & Lavack, A.M. (1996). Vertical brand extensions: current research and managerial implications. *Journal of Product & Brand Management*, 5 (6), 24-37.

Kim, C K., Lavack, A.M., & Smith, M. (2001). Consumer evaluation of vertical brand extensions and core brands, *Journal of Business Research*, 52 (3), 211-222.

KPMG & Quantum (2013). Woolworths Trolley Trends, *Research Report*, August, 12-16.

Kotler, P., Armstrong, G., Saunders, J., & Wong, V. (2008). *Principles of Marketing*, 5th European edition, Harlow: Prentice Hall.

Krishnan. H. S. (1996). Characteristics of memory associations: a consumer-based brand equity perspective. *International Journal of Research in Marketing*, 13, 389-405.

Krumhansl, C. L. (1982). Density versus feature weights as predictors of visual identification: comment on Appelman and Mayzner. *Journal of Experimental Psychology*, 111 (1), 101-108.

Lamey, L., Deleersnyder, B., Dekimpe, Marnik. G., & Steenkamp, Jan-Benedict, E., M. (2007). How business cycles contribute to private-label success: Evidence from the United States and Europe. *Journal of Marketing*, 71 (January), 1-15.

- Langley, S. (2013). Australian supermarket consumers miss branded food products. *Australian Food News*, 5th August.
- Lee, J. (2009). Cheesy? Kraft's second bite at name. *Sydney Morning Herald*, 7th October.
- Lei, J., de Ruyter, K., & Wetzels, M. (2008). Consumer responses to vertical service line extensions. *Journal of Retailing*, 84, 268-280.
- McCann, T. (2014). Coles, Qantas Chiefs lead parallel lives. *The Weekend Australian*, 1st March, p. 35.
- McDonald, P. W. (2012). Supermarket shopper offline pilot questionnaire and stimulus research, *Working Paper*, School of Business, University of Sydney.
- McDonald, P. W., Areni, C. S., & Henry, P. (2013). What are the differing brand perception effects of category assortments with multiple price points? *Working Paper*, School of Business, University of Sydney.
- Meyvis, T., & Janiszewski, C. (2004). When are broader brands stronger brands? An accessibility perspective on the success of brand extensions. *Journal of Consumer Research*, 31, 346-357.
- Miranda, Mario. J., & Joshi, Malay (2003). Australian retailers need to engage with private labels to achieve competitive advantage. *Asia Pacific Journal of Marketing and Logistics*, 15 (3), 34-47.
- Mitchell, S. (2012). Battle plan to win loyalty aisle by aisle. *Australian Financial Review*, 23rd April.
- Mitra, D., & Golder, P.N. (2006). How does objective quality affect perceived quality? Short-term effects, long-term effects, and asymmetries. *Marketing Science*, 25 (3), 230-247.

- Monroe, K. B. (1973). Buyers' subjective perceptions of price. *Journal of Marketing Research*, 10 (February), 70-80.
- Morales, A., Kahn, B. E., McAlister, L., & Broniarczyk (2005). Perceptions of assortment variety: the effects of congruency between consumers' internal and retailers' external organisation. *Journal of Retailing*, 81 (2), 159-169.
- Myers, C. (2003), Managing brand equity: a look at the impact of attributes. *Journal of Product & Brand Management*, 12 (1), 163-9.
- Nenycz-Thiel, M. (2011). Private labels in Australia: A case where retailer concentration does not predicate private label shares. *Journal of Brand Management*, 18 (8), 624-633.
- Nenycz-Thiel, M., & Romaniuk, J. (2009). Perceptual categorisation of private labels and national brands. *Journal of Product & Brand Management*, 18 (4), 251-261.
- Netemeyer, Richard. G., Bearden, William. O., & Sharma, S. (2003). *Scaling Procedures: Issues and applications*, Sage Publications, 1st Edition, UK.
- Nielsen, The State of Private Label Around the World, *Special Report*, November 2014.
- Palmeira, M.M., & Thomas, D. (2011). Two-tier store brands: the benefic impact of a value brand on perceptions of a premium brand. *Journal of Retailing*, 87 (4), 540-548.
- Pan, Y., & Lehmann, D.R. (1993). The influence of new brand entry on subjective brand judgements. *Journal of Consumer Research*, 20 (1), 76-86.
- Parducci, A. (1974). Contextual effects: a range-frequency analysis. *Handbook of Perception*, Vol. 2, New Academic Press, 127-141.
- Park, C. W., Milberg, S., & Lawson, R. (1991). Evaluation of brand extensions: the role of product feature similarity and brand concept consistency. *Journal of Consumer Research*, 18 (2), 185-193.

- Perry, M. (2014). Australia's Top Advertisers (2012 and 2013), Nielsen data, as reported by *AdNews*, 21st March, 21-28.
- POPAI. (2012). Shopper Engagement Study, *Media Topline Report*.
- Rahman, K., & Areni, C.S. (2014). Generic, genuine, or completely new? Branding strategies to leverage new products. *Journal of Strategic Marketing*, 22, 3-15.
- Rahman, K. (2007). An examination of brand architecture strategies for services: Can the sub-brand rule the day? *Doctoral Thesis*, Faculty of Economics & Business, University of Sydney.
- Rao, A. R. (2005). The quality of price as a quality cue. *Journal of Marketing Research*, 42 (4), 401-405.
- Rao, A.R., and Monroe, K.B. (1989). The effect of price, brand name, and store name on buyers' perceptions of product quality: an integrative review. *Journal of Marketing Research*, 26, 351-357.
- Richardson, P. S., Dick, A. S., & Jain, A. K. (1994). Extrinsic and intrinsic cue effects on perceptions of store brand quality. *Journal of Marketing*, 58, 28-36.
- Richardson, P. S. (1997). Are store brands perceived to be just another brand?, *Journal of Product & Brand Management*, 6, 323-335.
- Riley, F. D., Pina, J. M., & Bravo, R. (2013). Downscale extensions: Consumer evaluation and feedback effects. *Journal of Business Research*, 66, 196-206.
- Semeijn, J., van Riel, A. C.R., & Ambrosini, A.B. (2004). Consumer evaluations of store brands: effects of store image and product attributes. *Journal of Retailing & Consumer Services*, 11, 247-258.
- Sethuraman, R. (2003). Measuring national brand's equity over store brands. *Review of Marketing Science*, 1 (2), 1-26.

- Sheinin D.A., & Schmitt, J. (1989). Extending brands with new product concepts: the role of category attribute congruity, brand affect and brand breadth. *Journal of Business Research*, 31 (1), 1-10.
- Simonson, I. (1999). The effect of product assortment on buyer preferences. *Journal of Retailing*, 75 (3), 347-370.
- Sivakumar, K. (2000). Understanding price-tier competition: methodological issues and their managerial significance. *Journal of Product & Brand Management*, 9 (5), 291-303.
- Sivasailam, N. (2012). Price wars: the growing popularity of private label goods has created increased competition. *IBISWorld Industry Report*, October, G5111.
- Sloot, L.M., & Verhoef, P. C. (2008). The impact of brand delisting on store switching and brand switching intentions. *Journal of Retailing*, 84 (3), 281-296.
- Speedy, B. (2013). Home brands catering to upmarket tastes. *The Australian*, 24th December.
- Speedy, B. (2014). South African bidders defend their strategy for David Jones success. *The Weekend Australian*, 12th April.
- Steenkamp, Jan-Benedict. E. M., Kumar, N. (2009). Don't Be Undersold!. *Harvard Business Review*, December, 1-7.
- Steenkamp Jan-Benedict. E. M., Van Heerde, Harald. J., Geyskens, I. (2010). What makes consumers willing to pay a price premium for national brands over private labels? *Journal of Marketing Research*, 47 (December), 1011-1024.
- Suarez, M.G. (2005). Shelf space assigned to store and national brands. *International Journal of Retail & Distribution Management*, 33 (11), 858-878.
- Sullivan, M.W. (1990). Measuring spill-overs in umbrella branded products. *Journal of Business*, 63 (3), 309-329.

- Szymanowski, M., Gijsbrechts, E. (2012). Consumption-based cross-brand learning: are private labels really private? *Journal of Marketing Research*, 49, 231-246.
- Tauber, E. M. (1988). Brand leverage: strategy for growth in a cost-control world. *Journal of Advertising Research*, August/September, 26-30.
- ter Braak, A., Dekimpe, M.G., & Geyskens, I. (2013). Retailer private-label margins: the role of supplier and quality-tier differentiation. *Journal of Marketing*, 77, 86-103.
- The Economist. (2015). Aldi and Lidl: Tomorrow, not quite the world. The German discounters' business model only stretches so far, 14th March (from the print edition).
- van Herpen, E., & Pieters, R. (2002). Research note - The variety of an assortment: an extension to the attribute-based approach. *Marketing Science*, 21 (3), 331-341.
- Vanhuele, M., & Dreze, X. (2002). Measuring the price knowledge shoppers bring to the store. *Journal of Marketing*. 66, 72-85.
- Volckner, F., & Sattler, H. (2002). Success factors of brand extensions. *Conference Proceedings, 31st Annual Conference of the European Marketing Academy*, Braga, Portugal.
- Volckner, F., & Sattler, H. (2006). Drivers of brand extension success. *Journal of Marketing*, 70, 18-34.
- Volckner, F., Sattler, H., & Kaufmann, G. (2008). Image feedback effects of brand extensions: Evidence from a longitudinal study. *Marketing Letter*, 19, 109-124
- Wernerfelt, B. (1988), 'Umbrella branding as a signal of new product quality: an example of signaling by posting a bond', *Rand Journal of Economics*, 19, 458-466.
- Williams, B., Brown, T., Onsman, A. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, 8 (3).

Zielke, S., & Dobbelstein, T. (2007). Customer's willingness to purchase new store brands.
Journal of Product & Brand Management, 16 (2), 112-121.