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Private Labels: A Sign of Changing Times

Rainer Haas and Robert D. Weaver

Department of Economics and Social Sciences at BOKU,
University of Natural Resources and Applied Life Sciences, Vienna, Austria
Pennsylvania State University, USA

Abstract

A widely held view is that a dramatic shift is well underway in the structure of food system. First noticed at the farm level, contracting between retailers and fruit and vegetable growers for specific quality attributes signaled a shift from commodity style markets to relational transactions managed by retail grocers operating on massive spatial scales. By contracting directly with suppliers, retailers found they could more efficiently procure and manage characteristics of products and transactions that affect their performance. Similar contracting between meat processors and growers emerged in animal production. As a result of this shift, retailers define product specifications and contract their production. This new organizational form constitutes a shift from a manufacturer dominated push system coordinated by markets operating at grower, assembler, processor, wholesaler, and retailer levels, to a pull system coordinated by bilateral contracts and agreements.

A key element of new strategies associated with these new organizational forms is the private label that can be used by retailers to strategically define attributes of products. The implications of private labels for farmer, processors, and consumers are significant and have received substantial attention by economic researchers, though many issues remain unresolved with respect to the performance implications of private labels and the new functional role of retailers. Of specific interest in this paper is how private labels relate to national brands, do they constitute near equivalent products that are close substitutes, or do they offer cheaper, lower quality products to a different market segment than buys national brands? To address this question, the paper presents results of student-implemented effort to examine field evidence gathered through scripted interviews with consumers at retail grocery venues. The paper begins with a summary of the key results available from the literature and identifies questions left unresolved. The paper then presents our approach followed by presentation of results from field interviews. We implement the study in Vienna, Austria and find strong evidence that supports the conclusion that while private labels have been widely adopted as a strategic tool by retailers. We find that private labels have been targeted at two market segments. A segment of consumers looking for low cost, and lower quality products are served by several private labels, while an important set of private labels targets the segment of consumers looking for high quality, higher priced products. The latter finding confirms that private labels are appearing that constitute national brand near equivalent products. This finding further suggests that continued structural change in the food industry is likely to see increasing supply of private labels that challenge the market positions of national brands.

Keywords: Private labels, store brands, pull innovation, consumer-orientation

1 Introduction

In the U.S., the food, beverage and consumer packaged goods industry contributes $2.1 trillion to GDP, employs 14 million workers, and contributes over $1 trillion in added value to the nation’s economy. A similar role for the industry is found in the EU. In 2009, the global food and beverage market accounted for around EUR 2.1 trillion (2009) in sales while food ingredients have been estimated to account for only about EUR 20 billion globally. For the past two decades, the food system has undergone substantial re-structuring as it has adapted to significant new opportunities presented on a number of fronts. As the food industry and system has evolved, adaptation has left behind or strongly challenged the sustainability of enterprises that once played central roles in the “old” food system. Among these are diversified farms and SME enterprises involved in distribution, logistics, and manufacturing. As the
The majority of these SME enterprises are rural in location, the opportunity for their sustainable engagement in the new food system is further challenged. Despite these challenges, it is clear that at least some consumer segments hold preferences for food with local and SME origins.

Free trade negotiations over the past decade have effectively dissolved national boundaries for food products and ingredients. Three trends have catalyzed the emergence of global food systems: 1) radical change in information technologies, 2) convergence of institutional "technologies" that govern transactions, and 3) evolution of technology for manufacturing to achieve strategic goals, see Weaver (2008). Together, these forces have led to intense specialization and a shift toward intense use of food ingredients that can be sourced from specialized firms and that perform specialized functions in food. Second, these forces have led to the feasibility of new global strategies for food manufacturing and product family development providing strong incentives for dramatic changes in the structure of the food industry. From a spatial perspective, the food industry as shifted from regional and national industries composed of protected manufacturers sourcing from regional or national supplies. Given this global orientation, food manufacturers can no longer rely on national brand awareness and trade restrictions to guarantee profitable margins for their food products.

At the same time, the troika of forces cited by Weaver (2008) has led to a dramatic change in the orientation of the vertical structure typical in the food system. National brands (NBs) emerged as a business model when the consumer's market basket was focused on regional and national products and NB manufacturers could monitor consumer behavior better than could retailers. In this situation, the vertical structure was "push" in orientation. NB manufacturers could focus on differentiated products that could be distributed through decentralized systems. Today, those vertical structures have begun to invert to define "pull" consumer-oriented systems where success in competition is conditional on serving highly dynamic and heterogeneous consumer preferences. Thus, Florida orange juice and Campbell's Soup are challenged in new ways to fulfill rapidly changing and highly heterogeneous consumer demands. As information technology has changed to support real time tracking and analysis of consumer choice at the retail store level, retailers have been enabled to precisely gauge, in nearly real-time, the performance of existing products and to estimate the potential of new products. This new information technology provides a competitive advantage to retailers to manage their product line and challenge NB manufacturers by offering "private label" (PLs) products that are near equivalents to NBs or fill emerging demands not yet met by NB manufacturers. Further, access to consumer information has allowed retailers to manage the reputation of their products jointly by conditioning product reputation on store reputation using PLs and by defining PLs that compose nonmarket, reputational attributes such as organic, fair-trade, or other cause-related characteristics. The feasibility of this tactic has enabled retailers to introduce new products under their own labels, rather than traditional national brand labels or emerging multinational brands (MNBs).

It is within this context that this paper will consider the role of private label food products for consumers. In particular, we re-examine the market positioning of PLs relative to NBs and MNBs using consumer interview evidence drawn from retail grocery venues in Vienna, Austria.
2 Evolution of PLs and current status in US and EU

2.1 EU Perspectives

It is widely recognized that over the past two decades PLs have expanded their share of grocery sales (AKBAY, 2005, 621). However, this continuous success of private labels is cited in many papers as based on PL positioning as low-cost, cheap alternatives to NBs or MNBs (Choi and Coughlan, 2006; Amrouche et al., 2008). This research suggests PLs constitute a cost leadership strategy that offers “generic” products, rather than offering innovative products that fill new consumer demands or compete head-to-head as near equivalent products with NBs. Other authors acknowledge the changing nature of private labels by considering premium private labels as a new strategic option (Anselmsson, 2008, 42ff; Laaksonen and Reynolds, 1994).

The European food retail market is characterized by high concentration. Five retailers hold 50% market share of the grocery market within the European Union (EU). Concentration goes in line with a concentration of food store outlets and growing outlet size. In France and UK, 2% of the stores hold 50% of the market (Bell et al., 1997). In at least 10 European countries, private labels have a market share of above 30%. In the UK and in Switzerland the market share is above 50%. In Austria, Belgium and Germany, the market share is above 40%: (PLMA, 2010). Private labels play an important role in the European food retailing, often used as a strategic tool to retain and expand customer demand, to improve the image of retail chains, and to achieve a unique position against hard discounters. In short, private labels became a crucial instrument for retail branding (Anon, 2010). Thus, their use by discount stores must be interpreted as only one of the strategic options pursued. That the image of private labels has changed from only being perceived as a cheap, generic alternative to national brands is reported by results in Nielsen (2009). 84% of consumers in Austria say that the quality of private labels is comparable to that of national brands (see ). 71% of respondents view consumers who buy private labels as clever suggesting that purchasing PLs does not have a negative social connotation. In part, this may reflect continuous efforts of retailers to develop and position premium private label brands.

![Image](image.png)

Figure 1. The image of private labels in Austria (Source: Nielsen, 2009, 50)
Another indicator for the rising share of premium private labels is the launch of organic private labels by all major European retailers (see Table 1). Offering “healthy”-eco food is a strategic move to improve the retail chain image and a counter differentiation strategy against the growing market share of hard discounter chains such as Aldi in Germany that pursue a quality and image upgrading strategy. In France, Carrefour offers four private label sub-brands under the umbrella brand name “Agir” (to act, Engl.), each aiming to improve the image of Carrefour Agir Bio: organic food products, Agir Eco Planète: environmentally-friendly, Agir Solidaire: fair trade products, and Agir Nutrition: health foods (Carrefour, 2009). For many national brand manufacturers producing private labels has become an economic “Conditio sine qua non” following the necessities of fixed cost depression and economics of scale. As an example, Berglandmilch, the biggest dairy company of Austria with 600 Mio. sales in 2008 (BMLFUW, 2009) produces private label supply that generates 50% of its export turn over.

To better understand the marketing strategies in the Austrian retail it is necessary to look at the competitive situation in the Austrian retail sector. The Austrian retail sector is dominated by three retail chains: REWE Austria1, Spar, and Hofer (the Austrian subsidiary company of the German hard discounter Aldi). In 2008, these three retailers covered a turn-over share of 78.5% of the € 16.6 Bn. sales in the Austrian food retail sector (Nielsen, 2009, 11). The Austrian food retail market is highly concentrated, characterized by the competition of two conventional retailers (REWE, 30.3% market share; SPAR, 28.3% market share) and one strong hard discounter (Hofer with a market share in sales of 19.9% in 2008). The German retailer REWE operates several retail chains in Austria: the hypermarket chain “Merkur” (< 1,000 m²; around 20,000 SKU2), the supermarket (400-1,000m²) chain “Billa”, the independent retailers (Sutterlüty) and the discount chain “Penny”. SPAR operates the hypermarket outlets “Interspar”, “Eurospar” and “Maximarkt”, the supermarket outlets “Eurospar” and “Spar” and as independent retailers “Spar”. The market share of private labels at Spar is 31% (Udwardi, 2009a, 23) at REWE it is around 20%, for Hofer no numbers are available. Spar markets seven food private labels (Spar, 2010), ranging from the discount store brand “S-budget” to premium private labels such as “Free From” (for people with lactose or gluten intolerance) or “Natur Pur” (organic). REWE operates six food private labels, ranging from the discount brand “Clever” to the premium organic brand “Ja natürlich”. Of around 1000 SKUs offered by Hofer, most are private labels. Two Austrian retailers, REWE and Spar, market NBs, however, they also offer PLs within the context of a dual strategy. Discount private labels are used as a counter strategy against the constantly growing market shares of hard discounters such as Hofer or Lidl (from Germany) while the premium store brands serve as strategic tools to improve the image of the retail brand, and to hold existing or to gain new customers. The extent of competition for customers is intense as evidenced by a rising share of sales of price promotion related sales (lower price for a specific period). For example, in 2008, 26.8% of total sales were promotion sales and in the first half year of 2009 it was 27,7% (Udwardi, 2009b, 12). Every day low pricing is only applied by Hofer and Lidl in Austria.

Competition is also evidenced by increasingly intense nonprice competition occurring through the offering of PLs by all store types, even hard discounters such as Hofer. Horst Leitner, central purchase officer at Hofer recently commented: “To buy and sell big volumes is not enough anymore. Regionality, environmental protection, animal welfare, and fairness for

1. In the following the terms REWE or REWE Austria will be used for REWE International AG which is a subsidiary of the German REWE Group.
2. Stock Keeping Units
local farmers is more and more important” (Udwardi and Schneeweiß, 2009, 48). A recent example of a quality-leadership strategy is the launch of the Hofer brand “Zurück zum Ursprung” (back to the roots). This store brand has around 120 SKUs and is positioned as regional, organic food product. The innovative character of this brand is demonstrated by a recent climate award given to Hofer for this brand. On each package a percentage of carbon dioxide saved in comparison to conventional food products is claimed. Besides a clear traceability concept (consumers can type in the product number on a website to get information where the food product was produced and processed) in the near future GMO-free food products will be launched under this brand (Udwardi and Schneeweiß, 2009, 49).

Another example of an innovative private label targeted at strategic positioning is the organic brand “Ja natürlich”. Introduced in 1994 “Ja natürlich” had a turnover of 272 Mio. Euro in Austria in 2008. “Ja natürlich” is the strongest food brand concerning turn over in Austria, and the brand alone represents 45% of total organic retail sales in Austria and around 30% of total organic food sales over all distribution channels in 2008 (Poschacher, 2009; Holley-Spiess and Möchel, 2009). To get a feeling for the strength of “Ja natürlich” it is helpful to compare it with the strongest organic brand in the USA. The strongest organic brand in the USA is from the retailer Safeway, a private label called “O’ Organics” which reported sales of 300 Mio $ in 2007 (Sahota, 2009).

2.2 US perspectives: Current trends

It is not surprising that strategy has emerged as a key ingredient to ensure profitability and competitiveness for food retailers in the United States, Western Europe and Australia. Key among strategy goals has been achieving cost efficient operations while at the same time finding means to earn higher margins from the offered product lines.

Within the context of the consumer driven market, see e.g. Weaver (2008), higher margins can only to be achieved through nimble response to evolving consumer preferences for particular attributes of food, e.g. health function, technological characteristics, environmental implications, and region of origin. On the cost side, while food chains historically depended on distributors to manage assembly of diverse inventory and re-distribution to retailers, retailer spatial scopes of operation now empower them to directly contract with suppliers and manage their own logistics.

Together, these imperatives for demand responsiveness and cost efficiency have been driven home by competition across food retailers. For example, consumer demands for information with respect to the environmental impact of their food choices have driven private sector initiatives to change product labeling and sourcing. Demand for more interesting store venues has led to substantial competitive effort to re-examine store layouts, services, scale, and scope of product offering.

Within this context, retailers are empowered by nearly immediate access to rich data that describes consumer choices nearly in real time. The secret to success is of course accurate interpretation of that data to establish insight that can direct strategy. Key among the modes putting those insights into action is private labels. While national brands allow generic response to mass market trends, private labels provide a local, customizable product that can respond to specific demand in particular locations. Importantly, they provide substantial strategic opportunity through first-mover actions by retailers. More importantly, they provide retailers with an opportunity to customize their product line to define specific store images to attract specific consumer segments. Thus, Texas-based Whole Foods Market, has used PLs to position itself to attract health- and quality-conscious American consumers.

A number of approaches to accessing consumer information have been developed. Tesco uses a loyalty card (Clubcard) supplemented with external research data and customer infor-
mation venues. Whole Foods collects data at the local level by eliciting customer feedback. In any case, the rich consumer data available supports rapid response to perceived changes and identified new opportunities. However, in order to achieve such responsiveness and flexibility, successful retailers have found it strategically illogical to negotiate with national brands to change their offerings. Instead, retailers have found PL provision to provide a strategic solution that enables rapid and continuous innovation in product offerings that evolve to fulfill continuously changing consumer demands. Such agility is enabled by PLs and pays-off through satisfying consumers.

The market potential of PLs in the U.S. appears to be substantial. A recent study by McKinsey Co., presented at the 2009 Private Label Manufacturers Association (PLMA) analyzes the store brand capabilities of a broad range of retailers and finds leading chains have successfully used PLs to differentiate their stores and to build consumer loyalty. The study estimates that $55 billion in annual supermarket sales could shift from the national brand segment to private label if more chains begin to follow the strategies of some large national retailers. Likewise, a report from the Food Institute (2007) found retailers are increasingly focusing on store brand PLs and estimates that private labels will claim a 24% market dollar share by 2016. They also reported that key retailers have used private labels to differentiate their store and have an average private-label dollar share of 22%, well above the current industry average of 16%. Despite such popular press comment on the role of PLs, little academic research has considered their implications or their management for retailers or for consumers. While popular press claims that private label market in the U.S. has expanded by 60% in the past five years are typical, academic research has not tracked this phenomenon. Nonetheless, private market research studies have shown that a large and growing number of U.S. consumers regularly buy PL goods and view them as equal or better in quality than NB substitutes, IRI (2007).

2.3 Implications for food manufacturing

The emergence of private labels has resulted in substantial and new roles for contract manufacturing. This model involves an important change from NB manufacturing. Specifically, it allows manufacturing to be separated from the brand and it allows retailers to introduce new products within the context of existing “umbrella” brands that span a product line to establish reputation that is neither product nor store-level in scope. This has enabled outsourcing of manufacturing to suppliers who are forced to compete for contracts and in an expansion of the spatial scope of potential suppliers beyond national borders. At the same time, it is enabling local sourcing and sourcing of particular types of ingredients (organic, grazed milk, free-range poultry) to satisfy emerging consumer preferences.

3 Literature Review

Past literature relevant to analysis of private label use has been extensive. Recent reviews are available from Berges-Sennou et al. 2004 and Sayman and Raju 2007. The literature has mainly focused on price competition, potential NB reactions such as advertising, and retailer strategies such as shelf space allocation. Key conclusions that appear to be robust include: 1) as the substitutability between NB and PL increases profitability of PL introduction increases; 2) as PL quality increases, store loyalty increases and profits from PL increase; 3) as price competition between NB and PL increases, while as intra-NB price competition decreases, retailer profits from PLs increase; 4) NB wholesale prices decrease when PLs are introduced and retailers’ NB margins increase when PLs are introduced; 5) retailer gross profit margins as a percent of wholesale price are most often higher for PLs than for NBs; 6) PL entry success is
often more probable for settings with numerous incumbent NBs; 7) PL price promotion is most often profitable and used to increase margins, establish identity, and to inform consumers; 8) successful NB reaction to PLs include further differentiation, advertising, and quantity discounts; 9) slotting fees and other financial incentives to discourage PL entry are most often not successful; 10) NB coupons targeted at PL market segments often are profitable for both manufacturers and retailers offering PLs; 11) size and frequency of discounts for NBs are higher than for PLs, and 12) PL growth has opened substantial new roles for contract manufacturing that is expanding competition with NBs. More generally, most studies support the conclusions that 1) PLs allow the retailer to price discriminate across heterogeneous consumers and 2) PLs increase retailer bargaining power with manufacturers.

Results in the available literature are based on the following assumptions: 1) retailers have pricing power, typically monopolistic at least in local markets; 2) at equal prices consumers (weakly) prefer a national brand to a private brand; 3) private brands can be acquired by retailers at wholesale prices that are close to marginal cost; 4) private brands are homogeneous in vertical position, e.g. either low quality, little advertised or national brand substitutes; and 5) dynamic effects are limited to advertising. Importantly, competition has not been considered at the store-level (i.e. across stores in a local market) and gaming, if considered, between retailer and manufacturer(s).

Approaches taken in the available literature include: 1) field observation collected through interviews, focus groups, formal survey, or case study; 2) econometric study of historical secondary data such as time series data on prices, advertising, couponing, and sales; 3) econometric study of store or consumer level panel data drawn from scanner data; 4) optimization and simulation models parameterized based on researcher conjecture as influenced by available estimates or expert judgment; and 5) theoretic models from which analytic results are derived that appear robust to parameterization. A useful recent review of this literature is offered by Choi and Coughlan (2006).

Looking across available literature, it is striking that despite the dramatic shift and restructuring of the food system that the agricultural economics literature has contributed very marginally to analysis of such change. Instead, much of the work within this area has been pursued in the marketing and operations management literatures. This conclusion suggests substantial opportunity exists for high quality theoretic and analytic research to provide knowledge concerning observed food system changes and their implications for the industry structure including changes in spatial dimensions and size of enterprise, organization of enterprise, and consumer and social welfare.

4 Approach

To consider the role of PLs in retail food, we have initiated a research program that will be implemented in several countries. In this paper, we present one aspect of results from our study of the private label market in Austria. In particular, we report results from a consumer survey conducted at retail venues of several retail food chains in Vienna, Austria. The aim of the consumer survey was to measure consumer perception of NBs and PLs with an emphasis on how consumers perceive the position of PLs relative to NBs. First, we use the conceptual tool of brand mapping implemented with the brand asset evaluator of Young & Rubicam (Kotler and Keller, 2008) as a starting point to develop specific dimensions of product characteristics to evaluate the PLs and NBs. The brand asset evaluator uses four main factors to measure brand value: differentiation, relevance, esteem and knowledge (see ).
We used the brand valuator as a framework to apply six dimensions (or brand attributes) to measure differences in brand perception: price, purchase frequency, quality perception, popularity of the brand, knowledge about origin of the product and the brand awareness. Consumers were asked to rate the quality of brand X by choosing a value on a scale from 1 (low quality) to 6 (high quality). The data were analyzed nonparametrically with descriptive statistics, multivariate correspondence analysis, and factor analysis.

Results are based on responses from interviews of around 300 consumers in selected retail outlets of the retail chains Billa, Merkur, Spar, Eurospar and Hofer in Vienna. The interviews took part in December 2009. shows an overview of the selected retail chains for the survey. The five retail chains belong to three different retail companies which over around 80% of the whole food retail sales in Austria. The retail chains were selected based on their market shares and to mirror the typical outlet forms in Austria, ranging from small and medium sized retail stores with a high density in Austria within a store size from 200 to 1000 m², representing the typical “around the corner” supermarket. We also included two hypermarket formats represented by Merkur and Eurospar and venues from the strongest hard discounter retailer in Austria “Hofer” owned by the German retailer “Aldi”.

Figure 2. Brand Asset Valuator from young & Rubicam (Kotler and Keller, 2008)
Table 1. Overview of selected retail chains for the consumer survey

<table>
<thead>
<tr>
<th>Retail chain</th>
<th>Billa</th>
<th>Merkur</th>
<th>Hofer</th>
<th>Spar</th>
<th>Eurospar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td>REWE Group (Germany)</td>
<td>Aldi (Germany)</td>
<td>Spar Group (Austria)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average store size</td>
<td>500 - 1000 m²</td>
<td>2000 m²</td>
<td>800-1000 m²</td>
<td>200-1000 m²</td>
<td>1000-2500 m²</td>
</tr>
<tr>
<td>Assortiment of articles</td>
<td>7,000</td>
<td>20,000</td>
<td>800-1000</td>
<td>6,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Outlets in A</td>
<td>1000</td>
<td>112</td>
<td>421</td>
<td>1,212</td>
<td>142</td>
</tr>
<tr>
<td>Positioning</td>
<td>close retail shop</td>
<td>hypermarket</td>
<td>Hard discount</td>
<td>close retail shop</td>
<td>Extended supermarket</td>
</tr>
<tr>
<td>Sales per m² in €</td>
<td>5.972</td>
<td>5.644</td>
<td>11.040</td>
<td>4.741</td>
<td></td>
</tr>
<tr>
<td>Market share 2008</td>
<td>30,3%</td>
<td>19,9%</td>
<td>28,3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price policy</td>
<td>Limited promotions</td>
<td>Every day low pricing</td>
<td>Limited price promotions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Nielsen (2009) and Schuhmayer (2009)

To maintain an interview script length that was not discouragingly long for the respondent, the number of brands included in the questionnaire had to be kept small. Therefore, two NBs from the two biggest dairy companies of Austria were selected and one multinational brand (see ).

Table 2. Overview of selected NBs for the consumer survey

<table>
<thead>
<tr>
<th>Brand</th>
<th>Schärdinger</th>
<th>NÖM</th>
<th>Danone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logo</td>
<td><img src="logo.png" alt="Schärdinger" /></td>
<td><img src="logo.png" alt="nÖM" /></td>
<td><img src="logo.png" alt="Danone" /></td>
</tr>
<tr>
<td>Label</td>
<td>national</td>
<td>national</td>
<td>Multi national</td>
</tr>
<tr>
<td>Owner</td>
<td>Berglandmilch</td>
<td>NÖM</td>
<td>Danone</td>
</tr>
<tr>
<td>Product categories</td>
<td>dairy products</td>
<td>dairy products</td>
<td>yogurt, curd, pudding</td>
</tr>
<tr>
<td>Price range</td>
<td>middle/high</td>
<td>middle/high</td>
<td>middle/high</td>
</tr>
<tr>
<td>Sales 2008</td>
<td>600 Mio. €</td>
<td>373 Mio. €</td>
<td>70,8 Mio €*</td>
</tr>
</tbody>
</table>

Source: BMLFUW, 2009, Danone, 2010; * sales only for dairy category

For PLs, five PLs were included, i.e. two from REWE, two from SPAR, and one from Hofer (see ).
Table 3. Overview of selected PLs for the consumer survey

<table>
<thead>
<tr>
<th>Private label brand</th>
<th>Jal Natürlich</th>
<th>Clever</th>
<th>Zurück zum Ursprung</th>
<th>Natur Pur</th>
<th>Spar S-Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logo</td>
<td><img src="image1" alt="Logo" /></td>
<td><img src="image2" alt="Logo" /></td>
<td><img src="image3" alt="Logo" /></td>
<td><img src="image4" alt="Logo" /></td>
<td><img src="image5" alt="Logo" /></td>
</tr>
<tr>
<td>Product categories</td>
<td>organic food</td>
<td>food and non food</td>
<td>organic food</td>
<td>organic food</td>
<td>food and non food</td>
</tr>
<tr>
<td>Price range</td>
<td>premium</td>
<td>discount</td>
<td>middle</td>
<td>premium</td>
<td>discount</td>
</tr>
<tr>
<td>Owner</td>
<td>REWE</td>
<td>REWE</td>
<td>Hofer</td>
<td>Spar</td>
<td>Spar</td>
</tr>
</tbody>
</table>

4.1 Sample description

At REWE and Spar, consumers were interviewed in the store outlets at the milk shelf. Hofer did not allow interviews inside the outlets; therefore interviews were taken at the sidewalk with consumers exiting the Hofer outlet. The sample was composed to establish representation of the Austrian population using interviews of approximately 300 responses. We based representation on key demographics: age group, sex, and education level. Our approach results in a sample error of around 5.6% based on reference data for quota sampling by Austrian national Statistic organization “Statistik Austria”, see Table 4.

Table 4. Comparison of sample and Austrian population in respect to age and sex

<table>
<thead>
<tr>
<th>Age-group (data in %)</th>
<th>male</th>
<th>female</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Austria</td>
<td>Sample</td>
<td>Austria</td>
</tr>
<tr>
<td>15-24</td>
<td>15.8</td>
<td>17.6</td>
<td>15.7</td>
</tr>
<tr>
<td>25-34</td>
<td>17.4</td>
<td>20.6</td>
<td>16.9</td>
</tr>
<tr>
<td>35-44</td>
<td>22.3</td>
<td>21.6</td>
<td>21.4</td>
</tr>
<tr>
<td>45-54</td>
<td>19.0</td>
<td>13.7</td>
<td>18.6</td>
</tr>
<tr>
<td>55-64</td>
<td>14.4</td>
<td>14.7</td>
<td>14.8</td>
</tr>
<tr>
<td>65-74</td>
<td>11.1</td>
<td>11.8</td>
<td>12.6</td>
</tr>
<tr>
<td>Total %</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

The sample is slightly underrepresented in the youngest age group of females, whereas the percentage of men in the age group of 45-54 is 5 % lower than the Austrian level. On the other side, men between 25 and 34 are slightly overrepresented. The variable “education” has been considered separately. In total, the achieved distribution of the quota sample is quite close to the Austrian reference standard. Concerning education, it was difficult to reach the group with the lowest level of education in person-to-person interviews of store-exiting consumers as educational level of potential respondents is not observable. Further, the educational background of consumers at particular locations of the supermarket outlets in Viennese districts is possibly biased toward higher education levels than the whole of Austria as suggested by above average shares of Viennese consumers with higher than Austrian average purchase power. We found that 75% of the consumers in our sample live in households sized between 1-3 persons. In total, 307 interviews were completed at five different supermarket outlets, the number of interviews was spread as equally as possible over the five outlets.
5 Results

To better understand the positioning of PLs relative to NBs in the eyes of the Austrian respondents, we first present selected descriptive statistics followed with a brand map based on the correspondence analysis and results of a multi-variant factor analysis. To simplify discussion, we introduce the following abbreviations to distinguish different brand types: PPL for “Premium Private Label”, DPL for “Discount Private Label” and MNB for “Multi-National Brand”.

5.1 Descriptive Results

Descriptive statistics for the consumer ratings of selected brand dimensions provide preliminary information about the consumer perception of the investigated brands. Six dimensions concerning consumer perceptions were examined: price, purchase frequency, quality perception, popularity of the brand, origin of the product and the brand awareness. For each, consumers rated the brands on a 6 point Likert scale with 1 indicating low response. For example, in the case of quality “low quality” to 6, meaning “high quality”. Figure 3 shows the percentage of all consumers attributing the two highest scores for quality (6 or 5) to the brands. From , it is clear that the PPL “Ja Natürlich” is the highest-rated brand with 82% of consumers attributing highest quality to it, followed by the PPL “Zurück zum Ursprung” with 77%.

The national dairy brands “NÖM” (74%) and “Schärdinger” (71%) are ranked on the third and fourth position concerning quality. Interestingly, the PPL “Zurück zum Ursprung” is a PL from the hard discount chain Hofer. The high ranking of this PPL can be seen as a sign for the image and quality improving efforts of this hard discounter. The multi-national brand “Danone” shows a significant higher percentage of consumers attributing high quality ratings to it, compared to the discount PLs Clever and S-Budget, nevertheless Danone is behind the other PPLs and NBs! The reason for this could be seen in relation with the importance of the origin of products for Austrian consumers. Many consumers relate the brand Danone with international origin which is an association that may influence their quality perception.
Next, Figure 4 shows the results for responses relative to brand awareness. The percentage of consumers responding with “I know this brand very well” or with “I absolutely don’t know this brand”. Still, the PPL “Ja Naturlich” is better known then the two NBs “NÖM” or “Schärdering” or the multinational brand “Danone”, which again underlines the strong position of the PPL “Ja natürlich”! The PPL “Zurück zum Ursprung” is weak concerning brand awareness, possibly reflecting the relative newness of this PPL as it was introduced only one year ago with TV advertising while “Ja Naturlich” has been engaged in brand building activities for 15 years. Nonetheless, “Ja Naturlich” appears more well known than “NÖM” and “Schärdering”, brands existing on the Austrian market at least since the 1960ies.
Concerning the dimension „origin“ the answers of the consumers draw a quite clear picture. The majority of consumers associate Premium PLs and NBs with Austrian or regional origin. As is apparent in Figure 5, the discount PLs “Clever” and “S-Budget” and the multi-national brand “Danone” are associated by a much higher share of consumers with international or unknown origin.

Figure 5. Percentage of answers associating Austrian/regional origing vs. international/unknown origin

5.2 Results of correspondence analysis

Correspondence analysis is a method for exploratory data analysis. It is designed to analyze simple two-way and multi-way tables containing a measure of correspondence between values found in the rows and columns. Typical for exploratory data analysis, correspondence analysis is not applied to test a priori defined hypotheses, but is applied to identify systematic relations between variables. An important distinction of correspondence analysis compared to other methods is the multivariate consideration of the data through simultaneous treatment of multiple categorical variables. The correspondence analysis reveals relationships that would not be detected in a series of pair-wise comparisons of variables alone. A very useful capability is the graphical display of row and column points in bi-plots, which can help in detecting structural relationships among the categories and objects (i.e., cases) of interest. Finally, correspondence analysis has very flexible data requirements. The only strict data requirement is a rectangular data matrix with non-negative entries and as scale it requires only nominal data.

Figure 6 presents the bi-plot position of PLs and NBs based on the consumer ratings with respect to six dimensions price, origin, purchase frequency, quality, brand awareness and popularity. The correspondence analysis was applied with a symmetrical normalization with the eight PLs and NBs as row variables and the six dimensions as column variables.
Figure 6. Brand map based on correspondence analysis

Generally, we use this approach to classify brands relative to specific brand perceptions. Thus, the smaller the distance between a brand and a brand dimension such as price or origin the more confidence we have in attributing that brand perception to the brand. Based on the bi-plot some interesting propositions can be made. In Figure 6, we interpret Dimension 1 as representing "price". The cluster of the discount-brands “Clever” and “S-Budget” are found to be closest to point "price", because they are perceived as quite affordable brands. We interpret Dimension 2 to mainly represent “origin”. The remote position of the MNB Danone is probably due to the majority of consumers rating it as an international brand and this apparently is a brand perception that is distinct from the others examined in the survey. Furthermore the bi-plot shows a triangle going from the optimal points "origin", “purchase frequency” and “quality”. Within this triangle is a cluster of PPLs and NBs (“Schärdinger”, “Zurück zum Ursprung”, “Natur Pur”, “NÖM” and “Ja! Natürlich”), all of them are perceived as Austrian/regional brands with high quality and purchase frequency. This result supports the inference that consumers do not differentiate PPLs from NBs, but instead perceive them as equivalent, substitutes for NBs. The dominant role of the PPL “Ja! Natürlich” is emphasized by the finding that it is the brand most closely located to the conceptual variables “quality”, “awareness” and “popularity”.

5.3 Results of factor analysis

A factor analysis was applied to the 6 brand perception variables to consider whether they jointly represent a smaller set of underlying brand perceptions. The scree plot indicated a 2 factor solution and these factors are used to position the brands in a 2-axes chart. The most common principal-axis factoring method was chosen, the rotation method Varimax, to reduce equal correlating factors. We verified the existence of conditions appropriate to support factor analysis using a KMO-test for which we found a value of 0.762 (“middling”) and
Bartlett’s Test of Sphericity where we found an estimated probability of 0.000 meaning that the null hypothesis of nonspherical data can be rejected with a probability of 100%. Figure 7 shows the rotated factor matrix. After rotation of the factors, the analysis proposed a 2 factor-solution. The estimated rotated factor loading matrix reported in Figure 7 indicates with which brand perception dimension the 2 extracted factors are most highly correlated. These highly correlated values provide a basis for interpreting the extracted factors.

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>purchase frequency</td>
<td>0.713</td>
<td>0.022</td>
</tr>
<tr>
<td>popularity</td>
<td>0.658</td>
<td>0.457</td>
</tr>
<tr>
<td>awareness</td>
<td>0.475</td>
<td>0.224</td>
</tr>
<tr>
<td>quality</td>
<td>0.479</td>
<td>0.733</td>
</tr>
<tr>
<td>price</td>
<td>-0.034</td>
<td>-0.535</td>
</tr>
<tr>
<td>origin</td>
<td>0.328</td>
<td>0.337</td>
</tr>
</tbody>
</table>

**Figure 7.** Factor analysis of brand perception dimensions

The first factor shows high factor loadings on the variables “purchase frequency”, “popularity” and “awareness”. In accordance to the brand valuator model of Young & Rubicam, we named this factor “brand vitality”. Even the value “quality” has some influence (0.479) on “brand vitality”. In each of the underlying brand perception dimensions correlated with this factor, the consumer can be interpreted as playing an active role, i.e. the consumer is involved in buying a brand frequently, in considering and rating a brand as popular, and in knowing a brand very well. Even the value “quality” has some logical impact (0.479) on “brand vitality”. The second factor is interpreted as *brand stature* according to the Young & Rubicam taxonomy as it is highly correlated with brand perception variables quality, price and origin. Even if “popularity” is loading higher on factor 1, its contribution to factor 2 should not be neglected. Based on these 2 extracted factors, all evaluated 8 brands were displayed in an image space within the 2 axes “brand vitality” and “brand stature”. The table presents the brand positioning based on the 2 factors. Based on their factor scores, each of the 8 brands analyzed are displayed in an image space with the 2 axes “brand vitality” and “brand stature”. The ideal product position would be in the upper right corner, which represents the maximum value for each factor. To facilitate the interpretation of the image space the names of the PLs and NBs were replaced by three categories: PPL for Premium Private Label, NB for National Brand, MBN for Multi-national Brand and DPL for Discount Private Label. Again the factor analysis shows similar results as the correspondence analysis. The DPLs are remotely positioned compared to the PPL and NB cluster on the upper right corner. “S-Budget” is perceived worse than “Clever”. Again, the MNB “Danone” is remotely positioned on the left upper ost corner (low purchase frequency, popularity and/or quality). The PPL Natur pur is below the average as well. “Ja! Natürlich” and “NÖM” are the strongest brands in consumer perception. “NÖM” is slightly stronger in brand vitality (purchase frequency, popularity, awareness), “Ja! Natürlich” has a slight competitive advantage in brand stature (quality, price as quality signal, Austrian/regional origin).
6 Discussion

Our results clearly illustrate the product level implications of the dramatic shift in management of product design and product line that has occurred in the retail food industry. As Weaver (2008) noted, three forces have led to near revolution that have manifested in this shift. Institutional change, technological change, and information systems changes have been catalyzed by competition to lead retailers to claim expanded roles in management of product design and product lines. This has manifested in the emergence of private label products that offer in some cases near equivalent attributes to consumers, however, more importantly retailers are now enabled to achieve substantially faster response to changing consumer demands given retailer access to near real-time data on consumer purchases. Further, retailers are enabled to establish and manage brands that encompass a portfolio of products united by common threads that can be marketed to consumers, e.g. spanning health, natural, local interests as does “Ja Natürlich”. Further, retailers can establish brands that are unique to their store image. In each case, these new potentials appear to being adopted rapidly by retailers in Austria. Parallel studies underway in France and the U.S. will lead to a sharper understanding of these changes.

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Figure 8. Brand positioning based on factor analysis
lecting data in store checks, doing qualitative expert interviews and personal consumer interviews in stores. They furthermore worked on the analysis of data and report writing. The authors are well aware and grateful that without the engagement and help of the students this zero budget research would not have been possible. The names of the excellent BOKU students are: Florian Brunner, Jannis Bücke, Andreas Fahrner, Katharina Graner, Christine Maria Gruber, Klaus Hafner, Martin Hornudasch, Shamsul Islam, Lisa-Maria Kaufmann, Josef-Michael Kienböck, Bernhard Koeck, Hansjörg Loder, Philipp Magdits, Anna Niedziela, Helena Romanek, Claudia Stiebitzhofer, Birgit Therese Stockinger, Predrag Tatalovics, Vera Traar, Daniel Tumler, Carina Juliette Wallner, Franziska Wiesbauer, Simon Wolf, Jean Zellhuber. Last but not least the authors want to acknowledge the important collaboration with Dr. Robert Poschacher of REWE Austria.

7 References