Branding fresh food products, exploratory empirical evidence from the Netherlands
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Branding Fresh Food Products,
Exploratory empirical evidence from
The Netherlands

Ed Nijssen and Cees van Vliet

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Exploratory empirical evidence from
the Netherlands

(Keywords: marketing, branding, fresh food products)

Summary
There is a growing recognition that branding is a viable avenue for future financial
growth and prosperity for agricultural companies and for agribusiness in general.
However, little empirical work has been conducted to identify the key success factors in
fresh food branding. Also insight into the financial performance of fresh food brands is
limited. Based on research among purchase managers in the Netherlands, this article
identifies the variables that influence the level of consumer franchise of fresh food
brands. The empirical research focused on three product categories: meat/poultry,
cheese, and vegetables/fruit. The results show that both traditional success factors for
building strong brands (i.e. order of market entry and level of promotional expenditure)
and characteristics closely linked to the nature of fresh food products (i.e.
“vulnerability” of the product and shelf-life) are important. Furthermore, brands with
a higher consumer franchise are found to have a higher financial pay-off for both the
supplier and the retailer than brands with a lower consumer franchise. Strong brands
also generate more sales at the retail level.
Contents

Summary

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1. Introduction
Dutch agribusiness accounts for about 26% of the country’s exports (CBS, 1994). A large part of this involves fresh food products. Consequently, fresh food products are a vital part of the Dutch economy. Fresh food products are also an important element in retail sales and profits. Meat, vegetables/fruit, bread and dairy products offer substantial possibilities for retailers to differentiate their offerings. Fresh food counters, for example, can help to position the store (Nijssen et al, 1995). Given this importance one would expect the marketing of these products to be highly sophisticated. However, this does not seem to be the case since most fresh food products are still non-branded. They are typically treated and sold as commodity items.

Recently, there has been a growing recognition that branding may represent an important way to stimulate financial growth among agricultural companies. International brands like Chiquita and Sunkist show that branding of fresh foods is possible and, furthermore can be profitable. However, there has been no systematic identification and empirical testing of factors that influence the generation of a strong consumer franchise by branding fresh foods. Here consumer franchise can be defined as consumers' awareness of, their attitude towards, and their willingness to (re)purchase a brand. Also, insights into the financial performance of fresh brands at both supply and retail level are limited. To understand more about the key success factors in branding fresh food products and the impact of branding on companies' rate of return two key questions were examined:

1. Which variables determine the strength of consumer franchise for fresh food brands?
2. Do fresh food brands with a stronger consumer franchise yield higher profit margins for suppliers and retailers than those with a weaker consumer franchise?

The objective of the research is to help suppliers and retailers who are considering
branding their fresh food products to be more successful. As the branding of fresh products is a relatively new area the first step was a phase of exploratory research to define relevant issues. This provided input to the design of an empirical study, in which purchase managers from retail organizations were asked to evaluate a set of thirty brands from three fresh categories.

The article is divided into five sections. First the results of the first phase are presented. Next, the research methodology for the empirical study is presented, followed by the results of the study and their discussion. Finally, some conclusions are drawn. Together with the managerial implications come some suggestions for further research.

2. Previous research relating to the branding of fresh foods

Prior to discussing the branding of fresh foods, it is important to define what is meant by the term “fresh foods”. The product categories meat/poultry/fish, vegetables/fruit, dairy products and bakery products are often associated with fresh food products. However, many of these products are sold in packaged form, frozen, in cans or glass packages too. Therefore, defining “fresh foods” is more difficult than it first appears. Using a consumer perspective helps. Consumers think of products as being “more” or “less” fresh. Unprocessed, unpackaged, short shelf-life and food products that need to be refrigerated are considered “freshest or very fresh”. Processed, packed, long shelf-life products that do not need any chilling, or refrigeration are considered “least or not fresh”.

Although in building strong fresh food brands traditional marketing variables are important, specific product characteristics of fresh foods (e.g. shelf-life and distribution problems) play an important role. Based on examination of previous research and (trade) literature (both on branding and fresh products) and a number of expert interviews several variables which influence the consumer franchise generated by branding fresh foods, were identified. These are discussed next.
Order of market entry and level of promotional expenditures

Two traditional marketing variables are particularly important in building a strong brand, i.e. order of market entry and promotional expenditures. Companies that are first to market have clear competitive advantages over late movers (Lambkin, 1988; Schmalansee, 1982). Similar findings obtain at the brand level. Alpert et al (1992), for example, found that pioneer brands clearly have additional value over brands that are second, or later to market. Sullivan (1992) shows that products launched under a new brand name early in a product category's life cycle, earn a larger market share than those introduced late(r). Although most fresh food products have been on the market for many years it still may be easier for a "first mover" brand in a product category to develop a strong consumer franchise. Another marketing mix variable which is important is the level of advertising and promotional expenditures. Building a new brand today costs a minimum of several million dollars (Aaker, 1991; Tauber, 1981). A small budget may prevent a brand from gaining adequate awareness or establishing a foot-hold in the market place.

This suggests two variables likely to have an important impact on consumer franchise. i.e. the order of market entry and the size of the advertising/promotional budget. These variables will have a negative (compare l=early; 5=late) and a positive relationship with consumer franchise, respectively.

Product quality and influence of preparation

High perceived quality, including quality consistency, is a characteristic of strong brands. It seems typically an important aspect of their added value. Steenkamp and van Trijp (1988) argue that product quality consists of two dimensions: consumers’ quality expectations of the product and consumers’ quality experience with the product. These dimensions are closely linked to quality cues and quality attributes as well as to different stages in quality evaluation. For example, quality attributes for fruit might be, taste and juiciness. These can only be judged at the time of consumption. Therefore, consumers will look for other cues to evaluate the quality of fresh fruit while shopping. Two types of quality cues can be distinguished: intrinsic cues (e.g. color and firmness)
and extrinsic cues (e.g. price and expiry date). The fewer the intrinsic cues that are available and can be readily evaluated, the more consumers will rely on extrinsic cues like price. A brand name may also be used as an extrinsic cue (Milon, 1987:77; Applebaum and Goldberg, 1967:5). Therefore, branding may be especially suitable for products that are difficult for consumers’ to evaluate. However, consumers can also evaluate the quality of a fresh product at the moment of preparation. In fact, in some cases the quality of the product may be affected during preparation. Incorrect or inadequate preparation, e.g. overcooking, may spoil or down-grade the product. On the one hand, this may decrease the value of branding since the brand image is easily damaged. On the other hand, in such cases consumers may look for strong brands in order to reduce their risk.

Product specific characteristics that may affect the successful branding of a fresh food product thus include: product quality (including quality consistency), ease of quality evaluation, and the danger of spoilage during preparation. For the first two variables a positive relationship with branding is hypothesized. For the latter no relationship is hypothesized. Price is considered a separate (independent) variable. It is expected to be positively correlated with strong consumer franchise.

*Shelf-life and control of the supply chain*

As has been argued an important characteristic of many well-known brands is their high quality and quality consistency. However, it is hard to meet consistent quality standards for fresh food products since they are natural products. Differences may occur due to genetic variation, changes in the weather (for fruit/vegetables) or variation in feeding (for meat and dairy products). Products with a short shelf-life are especially vulnerable to changing conditions, making it hard to create and maintain a consistent quality image. Negative consumer attitudes can easily be triggered. Many of these potential problems can, however, be eliminated through supply chain control (Bockstael, 1987; Wickström, 1986; Moll, 1986). Total supply chain control involves a close cooperation and synchronization of all companies’ processes in the vertical marketing system in order to create more stable consumer output.
Thus, two additional factors may affect the success of a fresh food brand, i.e. supply chain control and shelf-life. Creating control of the supply chain and longer shelf-life will facilitate building a consistent brand image and thus will be positively correlated with a stronger consumer franchise.

_Packaging and physical possibility to label_

Packaging has become an important marketing tool (Kotler 1997). It should, for instance, communicate the brand name and attract attention. In the case of fresh food products packaging is, however, somewhat ambiguous. On the one hand, it can communicate information to the consumer and make the product easier to handle. On the other hand, it can have a negative impact on consumers' perception of a product as "fresh", since consumers tend to associate packaging with processed food. In-store fresh food counters have the best image for selling "fresh" quality products. However, such counters complicate the branding of the products by suppliers, since suppliers have limited control over the packaging material used by retailers at such counters. Another more basic problem is that several fresh food products are difficult to brand without the use of packaging (e.g. meat and butter).

Thus, the last independent variable we like to identify is the physical suitability of a fresh food product for labeling. It is expected to be positively correlated with strong consumer franchise.

_Financial performance_

In addition to explaining differences among the consumer franchise of fresh food brands based on the impact of these variables, we wanted to know whether branding fresh food products is profitable. We anticipate that branding will pay-off and thus we hypothesize a positive relationship between a brand's consumer franchise and its profit margin for both the supplier and retailer. A positive effect on retailers' sales is also expected.
3. Methodology of the quantitative study

3.1 Sample

The empirical study was conducted in the Netherlands, based on three fresh food categories, i.e. meat/poultry, cheese and vegetables/fruit. At the time of the research each category contained several well-known and less well-known brands. In each category ten brands were selected for evaluation, providing a total of thirty brands (for names see lower section of Table 1).

[Table 1 about here]

Twenty-four purchase managers from ten national and regional retail chains (with a total market share of approximately 75 percent) were asked to evaluate: (a) the strength of the consumer franchise of these brands, (b) the nine factors hypothesized to impact consumer franchise, and (c) the financial performance of the brands compared to similar non-branded fresh food products. We focused on retail chains as 68% of all Dutch fresh food products were sold though this channel in 1995 (Algemeen Dagblad/CBS). Furthermore, purchase managers of large retail chains have a broad view of the market and --due to company size-- have the best access to market research information (c. Hart and Diamantopoulos, 1992). For each product category, eight of the twenty-four managers\(^1\) evaluated the ten brands selected for that category. Correcting for missing values complete information was obtained for 196 cases. (compare: 3 categories * 10 brands * 8 purchase managers = 240 cases).

3.2 Measurement and validation

First, the purchase managers were asked to judge the strength of consumer franchise for each brand on a five point scale ranging from weak (1) to strong (5), focusing on the main product of that brand. Second, the managers were asked to evaluate the nine independent variables and the financial performance of each brand. The measures used

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\(^1\) Purchase managers of large retailers are organized by product category.
to operationalize the independent variables are shown in Table 2. The measures of financial performance are shown in Table 3.

[Tables 2 and 3 about here]

In order to validate the purchase managers' judgment of the strength of the consumer franchise for each brand one hundred and eighty consumers were interviewed. The objective was to derive a consumer-based estimate of the strength of consumer franchise for each brand. The interviews were conducted in front of four stores representative of the retail chains included in the study. Each consumer evaluated the 10 brands of one product category. Correcting for missing values 1761 (compare: 180 * 10 = 1800 cases) consumer brand evaluations were obtained. The items used to operationalize consumer franchise are shown in Table 1. They are based on the stages of hierarchical communication models (i.e. awareness, affection, and purchase) and also relate to what some writers call "brand equity" (c. Aaker, 1991). A total consumer franchise score was calculated for each brand by summing up the scores of the individual items/questions per consumer (Cronbach $\alpha = 0.86$).\(^2\) Next, the average consumer franchise score per brand was calculated for all consumers that evaluated the brand (see Table 1). As the highest possible score is 6 and the highest score was only 3.82, i.e. Chiquita, we must conclude that even the strength of this brand's consumer franchise is limited.

The dependent variable was then calculated by adding the overall consumer-based average to each purchase manager's evaluation of a specific brand's strength, and dividing by two. The new measure was considered to provide a more reliable estimate of the brand's consumer franchise. First, because both estimates concern

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2 If a consumer had never bought a brand or was not able to evaluate a brand's quality level the scores for the consumer measures (b) and (c) of Table 1 were automatically set at "0". The standard deviations (see Table 1) show important differences among consumers for strength of consumer franchise of most brands.
complementary perspectives. Second, because the Cronbach $\alpha$ of the new scale (0.61) approached Nunnally's criterion of $\alpha \geq 0.70$ and was considered acceptable given the exploratory nature of this study.$^3$

### 3.3 Preliminary analyses

Examination of the correlation matrix of the nine independent variables revealed that some of these were highly correlated (next to the two measures for quality that were anticipated to be correlated). A factor analyses was therefore conducted. It showed that three variables, i.e. "ease of quality evaluation", "physical suitability for labeling" and "danger for preparation spoilage" should be grouped together. It seems that a product like meat (cheese) that is easy (difficult) to spoil during preparation, is more (less) difficult to brand and, therefore, more difficult (easier) to evaluate. This new construct was labeled "vulnerability" (Cronbach $\alpha = 0.73$). Based on the hypotheses formulated for the original variables, a positive effect on the level of consumer franchise was anticipated for this new construct. The correlation matrix of the seven resultant independent variables is reported in Appendix A.$^4$

### 3.4 Analysis

Regression analyses were conducted to analyze the relationships between the seven independent variables and the measure of consumer franchise for the thirty brands. First, regression analyses were done for each product category independently. Because each purchase manager evaluated more than one brand, we had to check for a possible respondent bias. A dummy variable for each respondent was therefore included. No

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$^3$ A closer look at the correlation between the sub-measures of the consumer-based estimate of consumer franchise (i.e. awareness, attitude and purchase) and the purchasing managers evaluations showed no significant differences. This implies that the purchase managers' judgment is, for instance, not just based on brand sales or market share.

$^4$ Quality and promotional expenditure are fairly highly correlated. Additional regressions, including one of the two variables at a time, show that their correlation does not confound the findings, i.e. the Beta coefficients and levels of significance are not affected.
dummy was significant at the p<0.05 level and only one at the p<0.10 level. This confirmed that there was no respondent bias. Next, an overall regression analysis was run across all three product categories. To control for product categories’ specificities two dummies were added. The financial results for the brands were analyzed using simple correlation analyses for each of the three measures across the three product categories. Given the assumption that branding will have a positive effect on financial pay-off, one-tailed results are reported.

Because of the limited sample size and the exploratory nature of the study a significance level of p<0.10 is used for both the correlation and regression analyses.

4. Results

4.1 Explaining differences in consumer franchise

Table 4 reports the results of the regression analyses of the strength of consumer franchise for the eight brands in each product category, as well as the overall equation. All regression equations are significant and have acceptable levels of adjusted $R^2$. These results point to a good fit of the model formulated.

The outcomes per product category are similar as far as the marketing variables “market entry” and “promotional expenditure” are concerned. These variables are significant for all categories and their impact is in the anticipated direction. For cheese these variables are, however, also the only significant ones, which probably explains the relatively low $R^2$ (0.30) for this category. For meat/poultry and fruit/vegetables “vulnerability” is also significant. However, its sign is negative, i.e. in the opposite direction of what was anticipated. In addition for meat/poultry “quality” and “control of the supply chain” are significant. The impact of “quality” is in the anticipated direction, i.e. positive, but the influence of “control of supply chain” is negative and thus in the opposite direction.

[Table 4 about here]
The results of the overall analyses are also reported in Table 4. Again a good fit is found. The significance of the dummy variable for the “meat/poultry category” shows that the strength of consumer franchise for brands in this category is substantially lower than that of the other two product categories (see also Table 1). Apart from the two marketing variables, “vulnerability”, “shelf-life”, and “price” are significant. The negative effect of “shelf-life” was anticipated. The negative effects for both “price” and “vulnerability” are, however, counter to our expectations. For “quality” and “channel control” no significant effects are found.

4.2 Financial performance
The results with regard to the financial performance of the fresh food brands are reported in Table 5. These confirm our hypothesis that brands with a stronger consumer franchise perform better financially than brands with a weaker consumer franchise. This is true at both the supplier and the retailer-level (profit margin and sales). Only for cheese no significant positive relationship is found between consumer franchise and suppliers’ profit margin.

[Table 5 about here]

5. Discussion
The high R²'s for meat/poultry, and fruit/vegetables (0.75 and 0.54) suggest that the hypothesized variables identified in the qualitative research do explain a substantial degree of variation in consumer franchise among the ten brands in each category. Only the results for the product category cheese (0.30) are relatively weak. This may be due to a lack of variation within this category since the brands consisted of standard Dutch cheese. The results (e.g. shelf-life) might have been stronger if a broader range of cheeses, such as brie and blue cheese, had been included. As in the case of other fast-moving-consumer-goods market entry and promotional expenditure are the most important variables explaining consumer franchise of the brands in the three fresh categories. Pioneer brands stand a better chance of obtaining a high level of awareness
and preference, which forms a barrier to late entrants (Bockstael, 1987:244). The only way to build a brand is to spend money developing that awareness in order to generate initial sales (Kotler, 1991). The effects of the other variables differ somewhat per product category. High quality has a significant positive effect for meat/poultry brands. However, for control of the supply chain a negative influence was found. Although this was not hypothesized, closer inspection of the data showed an above average score for quality but a below average rating of supply chain control for several meat brands such as Greenfields. As the largest retailer in the Netherlands, its owner, Albert Heyn (20-30% market share), appears able to generate above average consumer franchise simply by labeling its products and ensuring satisfactory rather than high quality. The negative impact of vulnerability seems to support this line of reasoning. Limited efforts with regard to supply chain control will especially be harmful in the case of highly vulnerable products. Non-consistency in quality will lead to disappointed consumers and trigger a negative consumer attitude.

In the overall regression order of market entry and level of promotional expenditures also stand out as the most important variables, affecting the strength of consumer franchise. The significant values for “shelf-life” and “price” seemed strange, for in the individual samples of each category neither of these variables was significant. However, the sub-samples may have suffered from small sample size (see for instance the T-values for price, i.e. -1.2 and -1.5 for cheese and vegetables/fruit, respectively). The higher variation per variable across categories has probably also its influence. The significant and negative influence of price on consumer franchise, together with the not significant values for quality and supply chain control, support our conclusion that fresh food suppliers’ branding policies are generally weak and lack consistency. Following ordinary marketing theory “similar” patterns of relationships of marketing mix variables should have been found for stronger and weaker brands (i.e. a positive relationships between, for instance, quality and consumer franchise, and a positive relationship between price and consumer franchise). This raises some questions concerning the motivations for and knowledge of branding by current fresh food suppliers. An
explanation may be the supply-orientation of the fresh food industry in the Netherlands which is dominated by large cooperatives. Their marketing knowledge is limited. In their organizations power lies with the farmers who still tend to be commodity and short-term driven.

The finding that fresh food brands with a higher consumer franchise show better financial results for their suppliers and retailers, support our hypothesis. The better financial results are a direct result of consumers' awareness of, and loyalty to, strong brands. Both profit margin and sales are positively affected by the strength of consumer franchise. This proves that branding is a viable avenue to improve category performance of fresh food products. Only in the case of cheese did consumer franchise not correlate with suppliers' gross margin and weakly with retailers' gross margin. This may be due to the limited variation in the brand category. A closer investigation of the data showed a high pay-off for both suppliers and retailers of all cheese brands.

5.2 Management implications
The low average scores for consumer franchise suggest that brand strength for the three food categories is still limited, although clear differences exist between categories. The results of our analyses provide an important explanation for the limited success of fresh products' branding. Many suppliers do not have adequate marketing programs to support and build their brands. Such programs are, however, a prerequisite for success (Kotler, 1991). Although fresh product suppliers have discovered the importance of brands, most still need to become aware that branding is more than just labeling. Brands need to be targeted and positioned carefully (Park et al., 1986). Based on this positioning the marketing mix (product, promotion, place, and price) can be planned and build. In addition, since the overall strength of consumer franchise for branded fresh products is limited it seems that the category as a whole needs to be managed effectively. Suppliers of strong brands should become involved in category management working together with retailers to invest in the future and (re)educate consumers. Absence of fresh food brands, poor quality of existing brands and failure to use price as a cue to signal quality
have made consumers reluctant to buy such brands, especially in categories where quality is difficult to evaluate (e.g. meat/poultry). Although the specific action to be taken will, at least to some extent, depend on the specific category, such efforts are likely to prove worthwhile. The superior performance of the stronger brands shows the viability of such a strategy. In particular, first mover strategies supported by adequate advertising/promotional expenditures will be critical.

5.3 Further research
Further research is clearly needed. The present study has its limitations due to the way in which the variables were operationalized (often by a single item) and reliance on assessment by purchase managers (see Phillips, 1981). Furthermore, we did not compare results with evaluations of branded and non-branded products of the traditional fresh food channels, i.e. the butcher's and greengrocer's shops, nor did we examine the attitude of retailers toward the branding of fresh products. Experimental research and studying panel data may prove useful for studying the importance of branding fresh. Such data include information on product/brand availability in the store and the level of consumer involvement while buying the branded fresh products. Future research can also look into the impact of marketing instruments or differences across consumer segments and ethnic groups. For instance, non-transparent packaging material for meat has been used successfully in France, but it failed acceptance by Dutch consumers for potatoes. Branding of fresh food products is an area that clearly deserves more attention by researchers.
References


Food Trends (1992), Annual analyses of the food channel 1992 (in Dutch), Audet Tijdschriften.


Table 1: Measure of the dependent variable consumer franchise used the consumer study

<table>
<thead>
<tr>
<th>Scale</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Brand awareness</td>
<td>0=no recall;</td>
<td>1=aided recall;</td>
<td>2=unaided recall</td>
<td></td>
</tr>
<tr>
<td>b) Brand quality</td>
<td>0=worse;</td>
<td>1=equal;</td>
<td>2=better</td>
<td></td>
</tr>
<tr>
<td>c) Brand purchase frequency</td>
<td>0=never;</td>
<td>1=sometimes;</td>
<td>2=often</td>
<td></td>
</tr>
</tbody>
</table>

Average consumer franchise (formula) = \[ \frac{\sum (a + b + c)}{n} \]

<table>
<thead>
<tr>
<th>Meat/poultry brands</th>
<th>Consumer franchise brands</th>
<th>Cheese brands</th>
<th>Vegetables/fruit brands</th>
<th>Consumer franchise brands</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n= 60)</td>
<td>average</td>
<td>(n= 60)</td>
<td>average</td>
<td>(n= 60)</td>
</tr>
<tr>
<td>Greenfields</td>
<td>1.82</td>
<td>1.99</td>
<td>Uniekaas</td>
<td>2.48</td>
</tr>
<tr>
<td>Limousin</td>
<td>0.60</td>
<td>1.44</td>
<td>Maaslander</td>
<td>3.12</td>
</tr>
<tr>
<td>Farmers Best (n=59)</td>
<td>0.63</td>
<td>1.31</td>
<td>Kolummer</td>
<td>1.97</td>
</tr>
<tr>
<td>Het Gulle Varken</td>
<td>0.27</td>
<td>0.82</td>
<td>Milner</td>
<td>0.77</td>
</tr>
<tr>
<td>ISC Scharrelvarken</td>
<td>0.97</td>
<td>1.73</td>
<td>Becel</td>
<td>1.63</td>
</tr>
<tr>
<td>Good Farming</td>
<td>0.07</td>
<td>0.41</td>
<td>Beemster</td>
<td>1.62</td>
</tr>
<tr>
<td>De Landerie</td>
<td>0.10</td>
<td>0.54</td>
<td>Leerdammer</td>
<td>2.52</td>
</tr>
<tr>
<td>Friki</td>
<td>2.05</td>
<td>1.52</td>
<td>Zaanlander</td>
<td>1.15</td>
</tr>
<tr>
<td>Blonde d’ Aquitaine</td>
<td>0.85</td>
<td>1.69</td>
<td>Natuurzuivel</td>
<td>0.10</td>
</tr>
<tr>
<td>Best</td>
<td>0.05</td>
<td>0.22</td>
<td>Weide</td>
<td>0.68</td>
</tr>
</tbody>
</table>

F 15.75               |                          | 25.67         |                          | 47.63                      |
F-prob. 0.000         |                          | 0.000         |                          | 0.000                      |
<table>
<thead>
<tr>
<th>Name of Construct</th>
<th>Scale</th>
<th>Cronbach α</th>
<th>Name of Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical quality</td>
<td>1=low; 5=high</td>
<td>0.73</td>
<td>Quality</td>
</tr>
<tr>
<td>Consistency</td>
<td>1=low; 5=high</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promotional expenditure</td>
<td>1=low; 5=high</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease of quality evaluation</td>
<td>1=easy; 5=difficult</td>
<td>0.73</td>
<td>Vulnerability</td>
</tr>
<tr>
<td>Physical possibility to label</td>
<td>1=possible; 5=impossible</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>Danger of preparation spoilage</td>
<td>1=low; 5=high</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control of supply chain</td>
<td>1=no; 5=high</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shelf-life</td>
<td>1=short; 5=long</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market entry</td>
<td>1=early; 5=late</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price compared to non-branded products</td>
<td>1=lower; 5=higher</td>
<td></td>
<td></td>
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Table 3: Measures of financial performance used in the purchase manager study

<table>
<thead>
<tr>
<th></th>
<th>Scale*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Suppliers’ gross margin</td>
<td>1=lower; 5=higher</td>
<td></td>
</tr>
<tr>
<td>Retailers’ gross margin</td>
<td>1=lower; 5=higher</td>
<td></td>
</tr>
<tr>
<td>Retailers’ sales</td>
<td>1=lower; 5=higher</td>
<td></td>
</tr>
</tbody>
</table>

*) all compared to non-branded products in the same product category
Table 4: Results of the regression analyses for consumer franchise of the fresh brands

<table>
<thead>
<tr>
<th>Variable</th>
<th>Consumer franchise</th>
<th></th>
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<tr>
<td></td>
<td>Meat/poultry</td>
<td>Cheese</td>
<td>Vegetables/fruit</td>
<td>Overall</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n=73)</td>
<td>(n=53)</td>
<td>(n=70)</td>
<td>(n=196)</td>
<td></td>
</tr>
<tr>
<td>(Late) market entry</td>
<td>-0.51</td>
<td>-0.37</td>
<td>-0.56</td>
<td>-0.46</td>
<td>-0.6***</td>
</tr>
<tr>
<td>Promotional expenditure</td>
<td>0.51</td>
<td>0.47</td>
<td>0.37</td>
<td>0.41</td>
<td>7.2***</td>
</tr>
<tr>
<td>Vulnerability</td>
<td>-0.14</td>
<td>-0.07</td>
<td>-0.17</td>
<td>-0.14</td>
<td>-3.0***</td>
</tr>
<tr>
<td>Quality</td>
<td>0.16</td>
<td>0.01</td>
<td>-0.08</td>
<td>0.06</td>
<td>1.1</td>
</tr>
<tr>
<td>Control of supply chain</td>
<td>-0.15</td>
<td>0.06</td>
<td>0.02</td>
<td>-0.03</td>
<td>-0.5</td>
</tr>
<tr>
<td>Shelf-life</td>
<td>0.07</td>
<td>0.07</td>
<td>0.13</td>
<td>0.10</td>
<td>1.9*</td>
</tr>
<tr>
<td>Price comp. to non-branded products</td>
<td>0.05</td>
<td>-0.17</td>
<td>-0.14</td>
<td>-0.10</td>
<td>-2.1**</td>
</tr>
<tr>
<td>dummy (meat/poultry=1)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>-0.21</td>
<td>-3.8***</td>
</tr>
<tr>
<td>dummy (cheese=1)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>0.04</td>
<td>0.6</td>
</tr>
<tr>
<td>adj. R²</td>
<td>0.75</td>
<td>0.30</td>
<td>0.54</td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>F-value</td>
<td>31.78</td>
<td>4.24</td>
<td>12.60</td>
<td>38.38</td>
<td></td>
</tr>
<tr>
<td>sign. F</td>
<td>0.000</td>
<td>0.001</td>
<td>0.000</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>DF</td>
<td>7 (65)</td>
<td>7 (45)</td>
<td>7 (62)</td>
<td>9 (186)</td>
<td></td>
</tr>
</tbody>
</table>

*** p<0.01  
** p<0.05  
* p<0.10  
NA not applicable
Table 5: Results of the correlation analyses between consumer franchise of the fresh brands and financial pay-off

Pearsons correlation, one tailed significance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Meat/poultry (n=70)</th>
<th>Cheese (n=54-55)</th>
<th>Vegetables/fruit (n=73-76)</th>
<th>Overall (n=197-200)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suppliers' gross margin</td>
<td>0.32***</td>
<td>-0.06</td>
<td>0.38***</td>
<td>0.31***</td>
</tr>
<tr>
<td>Retailers' gross margin</td>
<td>0.19**</td>
<td>0.19*</td>
<td>0.35***</td>
<td>0.28***</td>
</tr>
<tr>
<td>Retailers' sales</td>
<td>0.51***</td>
<td>0.33***</td>
<td>0.32***</td>
<td>0.48***</td>
</tr>
</tbody>
</table>

*** p<0.01  
**  p<0.05  
* p<0.10

1 differences due to missing values
APPENDIX A: Correlation matrix of the independent variables

<table>
<thead>
<tr>
<th></th>
<th>Control of supply chain</th>
<th>Shelf-life</th>
<th>Price</th>
<th>Promotion expenditure</th>
<th>Quality</th>
<th>Vulnerability</th>
<th>Late market entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control of supply chain</td>
<td>1.00</td>
<td>0.18</td>
<td>0.36</td>
<td>0.36</td>
<td>0.33</td>
<td>-0.02</td>
<td>0.11</td>
</tr>
<tr>
<td>Shelf-life</td>
<td>1.00</td>
<td>0.13</td>
<td>0.29</td>
<td>0.40</td>
<td>0.05</td>
<td>-0.04</td>
<td></td>
</tr>
<tr>
<td>Price</td>
<td>1.00</td>
<td>0.32</td>
<td>0.24</td>
<td>-0.05</td>
<td></td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>Promotional exp.</td>
<td>1.00</td>
<td>0.54</td>
<td>0.08</td>
<td></td>
<td></td>
<td>-0.19</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>1.00</td>
<td>0.11</td>
<td></td>
<td></td>
<td></td>
<td>-0.13</td>
<td></td>
</tr>
<tr>
<td>Vulnerability</td>
<td>1.00</td>
<td>0.19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late market entry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>