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Channel Management and differentiation strategies: A case study from the market for fresh produce

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Summary

The paper analyses the current differentiation strategies in the market for fresh produce. First a short review of the literature on channel structure and product differentiation is presented, in order to identify, on a theoretical grounding the incentives for differentiation strategies. Second, a case study is drawn of a UK channel intermediary organisation carrying out differentiation policies in the fresh produce category (on behalf of UK multiple retailer customers') supplied by a dedicated Italian grower. Results show that in the fresh produce industry there is room for product differentiation, but with contradictory welfare effects.

KEYWORDS: fresh produce, product differentiation, channel structure and management

1. Introduction

The paper analyses the current differentiation strategies in the fresh produce (fruit, vegetable, salad) industry in the light of the new procurement policies carried out by retailers at the global level. These retailers seem to pay a growing attention to product differentiation and innovation, in order to put new value (rather than simply ripping out costs) into the supply chain.

Differentiation strategies are analysed both on theoretical and empirical ground. On theoretical level the main findings of the literature on product differentiation and market structure are reviewed, in order to assess the opportunities and the possible welfare effects of differentiation strategies in the food market. On an empirical level, the current structure and organisation of the fresh produce market are analysed, using data at the aggregate level, and the result of a case study. The case study refers to a single dyadic case approach, in which a primary producer is engaged in 'partner' supply to a principal Category Management (CM) intermediary for channel leading multiple retailers.

The results of the study indicate that in the fresh produce industry there are good opportunities for successful differentiation strategies. Nevertheless actors at the different vertical stages of the marketing channel take very different advantage from it, depending on their "power" to lead the channel. Moreover, because product differentiation tends to foster the oligopolistic structure of the market, it might have general negative welfare effects.

2. Product differentiation and market structure: General statements

Differentiation strategies are pervasive in market economies and are a powerful means of obtaining competitive advantages, as the "master" of competitive advantage claims: "Competitive advantage grows out of value a firm is able to create for its buyers that exceeds the firm's cost of creating it. Value is what buyers are willing to pay, and superior

value stems from offering lower prices than competitors for equivalent benefits; or providing unique benefits that more than offset a higher price. There are two basic types of competitive advantage: cost leadership and differentiation." (Porter, 1985, p.3). Firms differentiate their product to avoid ruinous price competition and seek some form of monopoly rent. Differentiation offers firms market power, naturally resolving the Bertrand paradox.

The industrial economic literature focuses on the effects of differentiation strategies on market structure, firms' performances and welfare effects (Beath and Katsoulacos, 1991). A basic tenet is the distinction made between horizontal and vertical differentiation. Products are said to be horizontally differentiated when if offered at the same price, consumers, if asked to do so, would rank them differently showing different preferences for different varieties. Instead, they are said to be vertically differentiated if, when offered at the same price, all consumer choose to purchase the same one, that of highest quality.

Horizontal and vertical differentiation leads to quite different general results in term of market structure. Horizontal differentiation is the implicit assumption at the core of models of monopolistic competition and have basically given rise to two classes of model, based on the assumption of symmetric consumer preferences (or representative consumer) and asymmetric preferences. In the case of symmetric preferences one brand is an equally good substitute for any other and the consumer's actual choice will depend on income and relative prices. When preferences are asymmetric, brands are not all equally substitute: if a consumer's ideal brand is *i* then the consumer prefers brands that are "near" to *i* in terms of their specification (i.e. in the space of product characteristics in the Lancaster lessicon) more than those that are "far" from it. Asymmetric preferences are assumed in location models, whereas symmetric preferences are assumed in models grounded in the Chamberlin paradigm.

The simplest and seminal location model is the Hotelling model of a spatial duopoly (1929), sanctioning the famous principle of minimum differentiation. Successive studies have shown that the Nash equilibrium in the Hotelling model relies on its restrictive assumption, as the zero conjectural variation assumption, and the prices and the number of firms being fixed exogenously. When these assumptions are relaxed a unique Nash equilibrium do not necessarily occurs. D'apremont, Gabszewicz and Thisse (1979), for example, starting from a different assumption on the initial location of the firms, show that the Hotelling model allows for a solution where the sellers seek to move as far away from each other as possible. In the free-entry circular model of Salop (1979) equilibrium is found where each firm earns zero profits and firms are symmetrically located around the circumference of the circle.

The Chamberlin (1933) large group model leads to the classical long-run monopolistic equilibrium, the one in which profits are zero and the 'dd' curve is tangential to the average cost curve. As long as the 'dd' curve that each firm faces still has some negative slope, each firm will produce at a point above the level of minimum average cost. Models postulating horizontal differentiation generally back equilibria characterized by many firms earning zero profits and prices above marginal costs. They raise the question of whether the market will produce too many or too few brands as compared with the social optimal, which is the issue previously addressed by Spence (1976). The result is generally a suboptimal number of firms/products, with too many or too few firms in the Chamberlin representative consumer model (depending on the parameters of the model) and unambiguously too much variety in the localized competition circle model.

While a perfect equilibrium is often problematic in the horizontal case, a perfect equilibrium exists in the vertical case consistent with the finiteness property, and stating that at the equilibrium there is a limit to the number of products for which price can exceed unit variable cost and which have a positive share of the market. The finiteness property was introduced by Shaked and Sutton (1983) and the markets in which this is a feature of equilibrium are referred to as natural oligopolies. In the model of Shaked and Sutton the two conditions that the unit variable costs associated with increased quality rise more slowly than consumers' willingness to pay for this and that the main burden of quality improvement falls on fixed rather than variable costs. An important development of the previous model of Shaked and Sutton (1987) is the one that demonstrates that a weak version of the finiteness property still holds when a mix of horizontal and vertical differentiation is accounted for (that is the pervasive situation in the real world where product differentiation never falls under the ideal type of vertical or horizontal).

Summarising differentiation is always a source of market imperfection and welfare loss. In the case of pure horizontal differentiation these effects are mainly linked to inefficient scales of production or to the suboptimal product variety, whereas the market structure approaches the competitive one. In the vertical (or mixed) case the negative welfare effects are linked to the oligopolistic structure emerging as market equilibrium. The limit theorems describing horizontal differentiation state that in the limit as the market gets large enough, an arbitrary large number of firms, each with a very small market share could co-exist in equilibrium.

When carrying out differentiation policies, firms will be earning supernormal profits even though the competitive game is based on the assumptions of non-cooperative Bertrand behaviour and free-entry. This result is in contrast to both structure-conduct-performance paradigm and entry-deterrence theory and is an example of case where structure (the number of the firms) and performance are endogenously determined.

3. Differentiation and channel strategies in the food sector

The economic literature just mentioned refers to the analysis of one industry at time, i.e. on the analysis of competition and market structure at the horizontal level (inter-brand competition). In the food sector the set of prices, qualities and varieties that actually face the final consumers depend on the strategies carried out by different actors in different stages of the distribution channel. These strategies are the results of horizontal as well vertical competition. Vertical competition has traditionally been addressed by the channel literature modelling different channel structure in a manufacturer-retailer relationship. Traditionally three ideal types of structure have been considered (Choi, 1996): exclusive dealer channel (one manufacturer supplying one retailer); monopoly common retailer channel (two manufacturers supplying the same unique retailer); monopoly manufacturer channel (a unique manufacturer supplying two retailers); duopoly common retailer channel (two manufacturers both supplying two retailers). The topic of channel literature has been the analysis of channel coordination/control problems between the manufacturers and its retailers and on the analysis of vertical strategic interaction; this latter defined in terns of "the direction of channel member's reaction to the action of its channel partners within a given demand structure" (Lee and Staelin, 1997, p.185). Previous literature, taking for granted the bargaining power of manufacturers, has focused on the incentive schemes used by manufacturers in order to let the retailers choose the strategies able to maximize the channel total profit while appropriating the largest share of it. Choi, for example, in the introduction of his 1991 article quotes the different forms of governance for the achievement of the maximum channel profit. Because such studies have generally been

applied to non-grocery sectors with few national brands and frequent exclusive selling agreement, the problems of channel coordination with regards differentiating besides pricing behaviours in a multi/manufacturer multi/retailer setting (that is the typical channel setting for the food industry), have been paid little attention. Starting with the previous insights of Choi (1991) successive works have explicitly addressed the problem of channel coordination and differentiation in grocery sectors: Lee and Staelin, 1997; Choi, 1996; Choi and Couglan, 2006; Avenel and Caprice, 2006; Ellickson, 2004.

Choi (1991) first analyses a channel structure with multiple-brand dealers, called common retailers, that well fit the typical structure of food retailing; as department stores, supermarkets and convenience stores. He studies a duopoly model of manufacturers who sell their products through a common independent retailer. He considers three different rules of the duopoly game, that account for different power balance scenario within the channel: a manufacturer Stackelberg game, where the manufacturers can play the role of Stackelberg leaders with respect to the retailer by taking the retailer's reaction function into consideration for their respective wholesale price decisions; a vertical Nash game, where neither the manufacturer nor the retailer can influence the counterpart's price decision (i.e. the manufacturer conditions its wholesale price on the retail price and vice-versa); a Retailer-Stackelberg game, where retailers play the role of Stackelberg leaders. While the first and the third game applies to situation in which few powerful manufacturers (retailers) supply (buy from) many retailers (manufacturers), the second game fits a situation where power is quite balanced in the relationship. Choi solves these models under both the assumption of linearity and nonlinearity of the demand function, finding contradictory results. Moreover, he solves the models under different assumption on the degree of product substitutability between the manufacturers' brands, in such a way as to introduce the analysis of the effect of product differentiation on channel competition. Also in this case the results are affected by the form of the demand function; with contradictory results (for instance he finds that less differentiation leads to increased prices and profits for all the members of the channel).

Choi (1996) extends the previous model by introducing a differentiated duopoly common retailer channel. He analyses pricing strategies of duopoly manufacturers who produce differentiated products and duopoly retailers who sell both products and carry out store differentiation strategies. Both product and store differentiation are assumed to be horizontal and, like the previous work, three games are considered (vertical Nash, manufacturer Stackelberg and retailer Stackelberg). The assumed demand function is adjusted in such a way as to explicitly take into account the two differentiation levels (introducing two parameters, for the product and store differentiation) and to overcome the contradictory results of the previous model as regard profit channel and differentiation. The Stackelberg games are quite different from the previous article, because besides the vertical competition, two horizontal levels of competition must be modelled; the manufacturer level and the retailer level. Accordingly, the equilibrium concept employed is the subgame-perfect Stackelberg equilibrium. Results attained by the model are summarized in the following seven propositions (Choi, 1996, pp.125-129):

"P1: A Stackelberg channel leadership by either manufacturer or retailer results in higher retail prices than those of the Nash game.
P2: Given a set of differentiation parameters, a channel member benefits by playing the Stackelberg leader at the expense of the other channel member who becomes the follower.
P3: Total channel profit is larger when there is no channel leadership. However, vertical Nash is not a stable structure, because each channel member has an incentive to become a leader.

P4: Wholesale prices (retail margins) increase as products (stores) are more differentiated. On the other hand, wholesale prices (retail margins) decrease as stores (products) are more differentiated. Overall, retail prices increase as products and stores are more differentiated.
P5: Product (store) differentiation benefits manufacturers (retailers) at the same time hurting retailers (manufacturers). Therefore, manufacturers want more product differentiation and less store differentiation, while the retailers want the reverse.
P6: Product (store) differentiation and the manufacturer (retailer) Stackelberg leadership have positive synergy effect on the manufacturer (retailer) profits.
P7: The total profit-maximizing combinations of product and store differentiations are not stable because each channel member has an incentive to differentiate unilaterally."

These results are consistent with the general wisdom that differentiation is used to mitigate price competition and that it tends to produce negative welfare effects. In the analysed case the combined vertical-horizontal competition produces non-stable equilibria that fail to maximize the total channel profit as consequence of the conflicting interests of retailers and manufacturers, and therefore opening the question whether a cooperative solution could lead to welfare improvements. Moreover the sketched channel structure fits the current situation of food marketing channels, either for the double level of differentiation or for vertical power asymmetry that pushes towards non-cooperative vertical forms of coordination; where both the parties seek to seizure the leadership (and retailers actually seem to accomplish it).

Avenel and Caprice (2006) model a vertical structure with a vertically differentiated duopoly at the manufacturer level and two retailers who differentiate through the chosen product line (i.e. each of them sell one or both the high and the low quality offered by manufacturers). The focus is on the analysis of the effects of different vertical contractual arrangements on product line differentiation, given different setting of vertical strategic interaction and different levels of costs for quality. Even if this model seems to better apply to non grocery sector (in that the assumption of manufacturer channel as leader and the kind of contractual arrangement that are examined, i.e. exclusive dealing, vertical integration and franchise fee) it can be of some interest for those segments of food market, such as the new functional and nutraceutical products, that imply a vertical differentiation strategy fed by heavy sunk investments in R&D by powerful food companies.

Choi and Couglan (2006) investigate the positioning problem of private labels considering the differentiation strategies carried out by national brands, and the consequent product-line pricing strategies carried out by the retailer. They model a manufacturer Stackelberg game where the manufacturer determines the wholesale price and the quality level of his national brand and the retailer chose: 1) the optimal level of vertical differentiation of her store brand from the national brand, 2) the degree of substitutability between the national and the store brand, 3) the retail margin for the national brands and 4) the price of her store brand. The equilibrium concept is a sub-game perfect equilibrium in which the second stage price equilibrium is reached immediately after the differentiation decisions. In order to simultaneously take into account the effect of horizontal and vertical differentiation the demand function used in the model is derived from a consumer utility function that contains a preference parameters for each product (vertical differentiation) and a parameter measuring the degree of substitutability with respect to other products. The results of the model for the case of two national brands and one store brand suggest that if the quality levels of the two national brands are equal and they are substantially horizontally differentiated, imitating either brand is optimal for the private label. However, when the national brands are allowed to be vertical differentiated, the private label is better off imitating the higher quality brand. Positioning in between is never an optimal solution. In contrast, when the two national brands are horizontally undifferentiated the private label

better response is to horizontally differentiate from both national brands. A consequence of these results is that the more the national brands differentiate, the more store brands carry out imitative strategies leading to head to head competition that pushes national brands towards further differentiation and/or advertising investments. Because high differentiation and advertising investment are sources of market power, these findings are consistent with that store brand literature that have suggested that the anticompetitive effects of store brands can be greater than the competitive ones (Cotteril and Putsis, 2000; Kim and Parker, 1997,1999).

To complete this short review of the main findings attained so far by the literature on differentiation and marketing channels, it is worth quoting a recent study by Ellickson (2006) who empirically applies Sutton's theory of endogenous sunk cost and vertical differentiation to the supermarket industry in the US. During the eighties and the nineties the consolidation process in this industry has been driven by the introduction of innovative automated distribution and procurement systems. If one assumes that the level of concentration is determined by the economies of scale and scope associated with these innovations, as markets grow (and these economies are exploited) the level of concentration should decrease. In contrast in the about 50 spatially defined markets in the US the evidence is of a stable small number of firms (3-6) capturing the majority of the market, independent of the population, with a competitive fringe of smaller retailers capturing a minor share of the market (Ellickson, 2006). Ellickson (2006) builds and tests a model demonstrating that such a structure is a real "natural oligopoly" stemming from a competitive game among the leader firms based on a growing vertical differentiation associated with increasing sunk costs. In his model, supermarkets compete by offering a greater variety of products (where variety is considered as a purely vertical form of product differentiation). This implies larger stores, and therefore larger sunk costs that discourage entry by other firms. As a consequence, quality provided by the oligopolists (proxied by store size) should increase with the size of the market. In other terms high concentration and escalation in quality seem to be both characteristic features of the supermarket industry.

4. Differentiation opportunities in the market for fresh produce

The previous section has shown how, in order to maintain their competitive advantage firms continuously increase their quality effort, either in the horizontal competitive game (manufacturers to manufacturers and retailers to retailers), or in the vertical competitive game (manufacturers to retailers). Once a differentiation strategy has initiated, it continues through time, especially when a quality (vertical) more than a feature (horizontal) differentiation is involved. Consistent with the general findings of the economic theory, the channel literature suggests that vertical differentiation, more than the horizontal one, tends to be associated with high degree of industry concentration and market power. In any case the equilibria (prices and market structures) at any level of the channel depend on a complex interplay between: 1) strategies carried out at horizontal and at vertical level; 2) power asymmetries between upstream and downstream firms; 3) the kinds of governance structures along the channel.

With regards to the fresh produce sector, at least three hints can be drawn on these general findings:

1). The sector of fresh produce offers retailers a wide range of possibilities to increase product variety and therefore it can be a core category in the differentiating efforts carried out by supermarkets in the horizontal competitive arena. Examples of fresh produce variety improvement are: new format and packaging; standards- as organic, fair trade, non GMO

and so on-; longer shelf life –through bio and nano technologies or enhanced storage and handling systems-; improved technological foods –functional and nutraceutical-; IV Gamma products, de-seasonality, (i.e. making seasonal products available throughout the year); typical products with an origin denomination; ethnic products.

2). Because the main fresh produce suppliers do not generally have their own supplier brand, in their differentiating strategies retailers do not have to take into account strategic reactions by the upstream counterparties; and hence are more able to entirely appropriate the competitive advantage stemming from the differentiation.

3). Because of the general weakness of the fresh produce sector structure, retailers can easily assume the leadership of the channel and therefore impose transaction governance forms that can accomplish the following goals: maximizing the channel profit; giving themselves the power of appropriating the larger share of the profit; leading suppliers to comply with retailers' differentiating strategies without a real vertical contractual integration.

5. Fresh produce markets and distribution in the UK and Italy

The multiple chain retailers dominate the market for fresh produce in the UK; they have the biggest market share in fresh fruit and vegetables providing 84% of all UK retail sales. There is steady growth in value sales of fresh produce in the UK, which marks it out against a general decline in most food commodities. This trend partly reflects the changing shopping habits of UK consumers but is also driven by the proactive role the supermarkets have taken. The multiples are keen to develop their profile as suppliers of healthy eating products but are also using various strategies to drive interest in the fresh sector, such as introducing exclusive new varieties or introducing new packaging. Mintel (2005) identify 'interest in fresh produce source and origin' from consumers, but however, note that price most often determines purchase decisions, with supermarket competitive pressure forcing price and margins down. The 'Everyday Low Pricing' (EDLP) strategies used by retailers have kept prices down across many basic categories. Such strategies enable the supermarkets to be seen to be offering value for money when compared to competitors. Building value in the fresh produce sector is difficult, price therefore remains the main differentiator for the consumer; and the essential nature of some products also means that some fruit and vegetables have been vulnerable to retail pricing strategies. However, branding and product differentiation will be of key importance to growth and adding value to the market. On this evidence, differentiating foods as being local and/or regional could therefore be beneficial to producers when marketing their produce and should enable them to obtain premium prices.

There is relatively little supplier proprietary branding in the UK fresh produce market, the availability and seasonality of fresh produce make it difficult for supplier branded produce to retain an on-shelf presence. Retailer own-branding has been of key importance to the development strategies of the multiples, who have segmented the fruit and vegetable market with their (for example) good/better/best/organic own-label ranges.

In the UK, supermarkets (both directly and through their intermediaries) set both the agenda and the price for the rest of the supply chain. UK Growers feel that the price control exerted by dominant multiple retailers is having a profound effect on their industry, and are again looking to both new markets and external agencies for support on this matter. In the UK differentiation takes place in the vertical competitive context.

The UK fresh produce supply chain has undergone numerous changes in the last decade, with large supermarket retailers becoming increasingly powerful. The implementation of modern business practices has helped improve efficiency in the UK fresh produce supply chain. This has allowed the chain to break out of the commodity trap and take the fresh produce category out of the commodity trading environment (Fearne and Hughes, 2000: p. 120) by means of innovation and value creation (White, 2000). The overall trend is towards the UK fresh produce industry being dominated by a few large corporations operating on a national level, with some corporations even operating on a European or global scale. Most recently, the takeover of one of the largest UK food retailers, Safeway by Wm. Morrison, has resulted in four major supermarket chains (Tesco, Sainsbury, Wal-Mart-Asda and Morrisons) accounting for three-quarters of retail grocery sales (IGD, 2005). Tesco take a third of the value of UK grocery sales alone.

A further development has been a change from market transactions to market relationships, networks, and interactions (Bourlakis, 2001; Kotzab, 2001). From the retailer perspective (and largely initiated by them) has been the development of Category Management (CM) as a key managerial tool. O'Keefe and Fearne (2002), for example, contend that their analysis of the application of category leadership in the fresh produce industry by UK retailer Waitrose shows that it is possible to successfully apply an integrated network-based relationship approach to what was considered to be a commodity sector.

CM (where a preferred supply takes greater responsibility for the entire supply chain of a given product category) has become universally applied by retailers. The premise is that CM facilitates greater levels of collaboration in vertical supply channels and underpins relationship development (Barnes et al., 1995). This occurs where a single (lead) supplier organizes the supply (from all the suppliers) of a given product category to the retailer. However, such initiatives are seen by some to be simply moving risk and cost onto the supplier and away from the retailer (Allen, 2001). This is an argument put forward in Dapiran and Hogarth-Scott (2003) who contend that the development of CM has not necessarily increased cooperation in supply chains and can be used by retailers to reinforce power and control.

Retailers are looking for fewer and larger suppliers who can work with them in vertical 'partnership' (Hingley, 2001; White, 2000). This approach delivers considerable advantages for retailers, in that they can influence entire food channels for given products through singular dyadic interfaces with nominated channel leading intermediaries, or 'Super-Middlemen' (Hingley, 2005a). Reducing the number of points of contact for supply not only derives benefits in terms of transaction cost savings, but also relational benefits in dealing with fewer but closer 'partner' suppliers. This has resulted in an overriding trend towards supply chain concentration of a market determined by the standards of large-scale retailers.

In Italy fresh produce accounts for more than the 24% of the total value of agricultural production (valued at prices received by farmers), and contributes to the positive part of the food trade balance sheet; with a self-sufficiency rate equal to 114%. Notwithstanding this positive data, the Italian fresh produce industry is in the middle of a deep crisis. In his last report on the industry the CIA, the main farmers union (CIA Nuova Agricoltura, 2006) reported the loss of Italian leadership in the European market. During the last ten years the Italian share of the total fresh produce markets of European partners (EU 15) has continuously decreased, meanwhile imports into Italy registered a sharp increase of +56% from the EU-25 and of 112% from outside the EU. The loss of competitiveness has been due to the enduring weakness of production structure (small firms) and to poor logistic structures compared with the recent consolidation and innovation processes within Italy's traditional competitor, Spain; and in the new fresh produce specialized countries, Egypt,

Morocco, Tunisia and Turkey. Also, new entrants to the European fresh produce market like China, Chile, Argentina and Uruguay seem to be stronger on the both levels of structures and organisation.
When asked how to overcome this crisis and recover a leading position in the domestic as well as the export market, farmers associations, experts and public officers of the Ministry for Agriculture, all give three simple answers: horizontal integration at agricultural level for achieving network externalities in the production and selling activities; quality improvement and better exploitation of the comparative advantages Italian producers have with respect weather, natural conditions and product variety; better relationships with big retailers that sell more 60% of the production and are the only actors in the distribution channel that actually can "persuade" consumers to reward the Italian product.

Differentiation strategies by leading supermarkets along with a preference for Italian suppliers could help Italian farmers to exit the crisis. Evidence from both consumers' attitudes and retailers' marketing strategies seem to indicate that this is a practicable way. It is interesting to note also that collaborating growers in Southern-Italy are taking the branding initiative in fresh produce, whereby most recently in Sicily, a consortium of Sicilian fruit growers from the Calatino South Simeto District have unveiled a new brand - Puraterra. The name is a reference to the pure soil and the high quality of the organic produce, cultivated on a total area of 100,000 hectares. Blood oranges, grapes, cactus figs, peaches and artichokes will be supplied under the new brand (Anon, 2007).

A recent survey by INDICOD (http://www.indicod-ecr.it/) on consumer preferences for fresh produce shows at least five notable attitudes:

1). As regards product attributes consumers rank this as follows: i. sensory attributes (taste, appearance and smell); ii. price; iii. convenience (time and energy saving in food shopping, storage and preparation disposal); iv. origin and traceability.
2) As regards organic products, almost half of the sample bought these at least once in the last month.
3) When explicitly asked, 65% of consumers disclose their preference for Italian products.
4) 60% of consumers in the sample are happy with the non-packaged, unbranded display of produce with free service but would like to receive more information on origin and product characteristics.
5) Young women in the sample are strongly interested in convenience attributes of produce, with a high willingness to pay for it.

Currently in Italy the market for produce is led by supermarkets, nevertheless with a still large share (about 38%) covered by traditional trade. Over the past fifteen years supermarkets carried out a price-based competition, enhancing procurement efficiency (mainly by operating their own distribution centres) and shrinking suppliers margins. This led to the substitution of Italian suppliers (with poor production structure and management capability) with foreign suppliers (mainly Spanish) that better fit buyer organisational and cost needs. Nevertheless some changes recently occurred with a growing attention for differentiation and local procurement policies.

Currently, about 55% of the Italian grocery market is covered by 5 groups with the following shares: Coop Italia 17,1; Carrefour Italia (with four different flags/formats Carrefour, GS, Diperdì, Docks Market), 10,4; Auchan, 9,6; Conad, 6; Esselunga, 8,3. (source: Food, 2006, La mappa degli ipermarcati e dei supermercati in Italia nel 2006 Dati IRI, Milano). During the last ten years all these leading groups, except Auchan, launched an own-branded line of high quality fresh produce, and an own-branded line of organic fresh produce. Moreover both Carrefour and Conad started a line of Italian traditional product

(“Terre d’Italia” for Carrefour, and “Percorso Italia” for Conad) and all increased the offer of IV gamma products (fresh cut, prepared, dressed, ready-to-eat), with a growing range and larger display.

Summarising the Italian market for fresh produce, according both the consumer attitudes and the consequent supermarket strategies, there seems to be split between an unbranded/undifferentiated segment, where sensorial attributes and price are the key leverages of competition, and a highly differentiated/ semi-branded segment; where quality, variety, origin, convenience, and every sort of added value are the keys elements for obtaining premium prices and competitive advantages. The second segment, of course, might be the one interesting for Italian growers struggling to maintain their market shares.

6. Methodology

It was decided to approach the question of product differentiation in vertical channel structures using a single dyadic case approach, in which a primary producer is engaged in ‘partner’ supply to a principal CM intermediary for channel leading multiple retailers. It is believed that this constitutes the most appropriate method to emphasise detail, depth, and insight, as well as understanding and explanation (Patton, 1987; Sayre, 2001). In this research we used semi-structured, personal interviews that allowed access to respondents' thoughts, opinions, attitudes, and motivational ideas. The two organisations which form the key vertical channel interaction were selected for their ability to contribute new insights, as well as in the expectation that these insights would be replicated (Perry, 1998). The cases were selected for reasons of being typical examples (Miles and Huberman, 1994; Patton, 1987) of fresh produce supply (the grower) and fresh produce category management intermediary (the buying and value adding organisation in ‘partnership’ with multiple retailer customers). Interview questions were standardised around a number of topics (Dibb *et al*., 1997). Questions were kept deliberately broad to allow interviewees as much freedom in their answers as possible (Glaser and Strauss, 1967). The findings are taken from the words of the respondents themselves, thereby aiding the aim of the research, whilst gaining much more information than would have been available from alternative research methods (Corbin and Strauss, 1998). Within-case analysis involved writing up a summary of each individual case in order to identify important case level phenomena.

The principal areas for exploration identified in the preceding literature are:

-The impact of vertical competition on channel coordination
-Competitive advantage through value-adding in vertical chains (cost leadership and differentiation strategies through branding, production and technological systems and seasonal variation opportunities)

7. Case analysis and findings

The two halves of the vertical-channel dyad are as follows. FP Marketing (name changed for reasons of anonymity) is the central marketing organisation for its own and associated growers produce against customer programmes and is based in the UK, with an annual sales turnover of over 100 million euro. It co-ordinates crop production and volumes both in the UK and overseas and supplies consolidated and value-added (packaged) fresh produce to large multiple retailers in the UK, under retailers’ own-label. 90 per cent of their business is in supply to UK multiple retailers, the remainder constitutes product that does not meet retailer specifications, and is marketed to UK wholesalers or processors. The group also has is own transport company. The product range is protected (e.g. glasshouse) fresh produce crops (tomatoes, cucumbers, peppers and so forth) from UK, Northern and Eastern Europe and the same range from protected/ unprotected sources in Southern-

Europe. The emphasis for this study is on tomato production and marketing and the vertical relationship of a tomato producer and value-adding intermediary to multiple retailer customers.

FP Grower (name changed for reasons of anonymity) is a Southern-Italy based family grower business of some 20 types of fresh produce, most notably tomatoes, and has an annual sales turnover of 10 million euro. They have 180ha, (80ha glasshouse and 100ha open field, in order to manage demand throughout the year). They grow and undertake primary value-adding functions (washing and basic packing in preparation for delivery). Their principal dedicated and 'partner' customer is FP Marketing. 60% of their product goes to intermediaries like FP Marketing and 35% direct to retailers, with the remainder 5% to wholesale markets. 80% of FP Grower's customers are overseas (UK, Austria, Switzerland and Germany). FP Marketing does invest some funds in varietal and agronomic development in Southern-Italy, but own no means of production in the region. The two organisations concerned in this case analysis are, therefore, separately owned and managed. Interviews with FP Marketing concerned the Commercial Director (CD), and Development Director (DD), and interview with FP Grower concerned the Commercial Director.

FP Marketing are a Category Management (CM) supplier to UK multiple retailer chains. As the CM process has evolved in the UK, their principal retail customers have pushed FP Marketing to focus and category manage the supply of fresh produce protected crops, hence they have foregone their interests in other crops (for example, in leafy salads); but have gained business in (notably) tomatoes. This meant that FP Marketing was able to expand their remit, responsibilities and sourcing of tomatoes on behalf of their predominant retail customers:

We have got Northern European growers, right the way from Belgium to the UK. We have now expanded into Poland for new sources, and that covers the UK seasonal supply/ demand. FP Marketing (CD)

What the CM system does is allow retailers to co-ordinate category supply through category leaders like FP Marketing. The intermediary organisation benefits from more business, but must take on an enhanced role and associated responsibilities, and this is becoming increasingly expensive for suppliers. However, FP Marketing does see this as part of a (service based) value-adding process:

…we have to provide services; we have to provide more resources. That is our added value to the customer, we supply all that technical (input)*, the agronomists, the ideas, the trials, the NPD, all of this development. There is not a charge for that.* FP Marketing (DD)

Multiple retail chains will specify quality assurance through determination of produce from accredited sources. These are normally European baseline production standards, environmental growing conditions and so forth; and different customers in different countries may expect variations by different accredited standards. FP Grower, for example, offers four types of certifications including EUREPGAP and is trialling a limited acreage of organic certified produce. With respect to further utilising quality and production systems as a means of market differentiation, UK retailers have developed their own further standards, additional to or inclusive of baseline accreditation:

(Named UK retailer) *have got a* (named variety of) *Cherry tomato, and we grow that for them. And* (a) *particular grower has got* (additional) *standards in his greenhouse. Normally it is EUREPGAP standard throughout the industry, but* (named grower) *has gone the next*

level which is (named retailer's standard). *This is the next level in terms of technical excellence.* FP Marketing (CD)

Production and quality standards are also important to FP Grower, but he sees that variations in environment standards/ as well as other areas such as diverse labour laws not controlled by retail customers, as frustrating and undermining:

….foreign competitors (growers in other countries) *take advantage from different labour regulations and different pesticide/use regulations, without a real policy of price and quality transparency being carried out by retailers. Product* from (named countries) *with low food safety standards is arriving… and sold in Italian supermarkets without clear information on its origin.* FP Grower

The CM role for FP Marketing includes managing the seasonal supply of product that takes in Northern European protected crop (as described above), but also that from Southern Europe. Equally important is devolved responsibility for product differentiation. Access to Southern-Italian tomatoes (typified by that produced by FP Grower) allows this differentiation. This region is notable for vine ripened tomatoes. These are specific variety, late-harvested (left on the vine until very red, mature and full-flavoured). This source allows distinct advantages in variety, climatic conditions and grower expertise not possible in Northern-Europe in order to produce a product with distinct taste and flavour advantages:

…generally (the advantage is a) *combination of better growing conditions, lower growing costs and the growth technique, the tomato speciality technique……by harvesting something on the vine you can take it to the next stage of maturity it will give it that extra shelf life and flavour and life advantage…. The flavours and varieties they* (Southern-Italian growers) *are producing are market leaders.* FP Marketing (CD)

The motivation of FP Marketing is to try to add-value to the products it supplies to supermarket customers in order to avoid the 'commodity-trap' of being in an unbranded business, in which retailer own-label is the predominant identity:

In commodity areas supply is far greater than demand and by their nature supermarkets will use that against us. So, we work to try and put identity to products……and try to add value to it, and try and raise awareness with our customer. We look at varieties and taste, we try not to be in value and standard (retail lines)*, our ideal aspiration is to be in 'special' and 'finest'* (retail lines)*… because you can get a higher value for it.* FP Marketing (DD)

Remember all of our products are our customers', (retailer) *own brand, there is no identity of our company. It is a way of promoting the grower, the variety, the techniques they are using and most importantly, the flavour. The flavours and varieties they are producing are market leaders.* FP Marketing (CD)

It is interesting to note that FP Grower does not share the FP Marketing's emphasis on product specialisation based on regionality. This may be a matter of perspective, where FP Marketing are sourcing produce from many countries, varieties, types and production methods; and FP Grower sees his produce as simply tomatoes determined by:

…general quality standards and procurement accountability. FP Grower

FP Grower's motivation is to find a wide market for his produce, whilst FP Marketing, with their CM-based interaction with retail customers identifies opportunities for sub-branding by regional identity:

We have now got customers (i.e. UK retailers) *who are even putting grower's names on the packs.* FP Marketing (CD)

I think (that) *they* (UK retailers) see (sourcing from) *Italy as a way of adding value. …..It is all a way of trying to sub-brand down to the grower.* FP Marketing (DD)

In this way, retail customers' (through the expertise and packaging operations of FP Marketing) in the UK are keen to differentiate for both UK and overseas (for example, Southern-Italian) produce as a means of further value-added.

In terms of branding, FP Grower does have a named identity, but as this is mainly used as an identifier on outer cases for wholesale and intermediary customers, brand identity does not appear on pack at retailer level; and if there is pack identity it is with the retailer's own-label brand. FP Grower's customers collect product (using their own transport arrangements) from them at the farm, which is packed 'on demand' to customers' specification. As a result FP Grower does not benefit from directly attributed brand identity. FP Grower's principal customer, FP Marketing is responsible for all of the value-adding in terms of packaging and on-pack marketing for UK retail customers. FP Grower puts loose raw material (tomatoes) into plastic returnable trays. This is collected by FP Marketing's own transport to take the produce to the UK. It is there that further value-adding takes place in terms of consolidation, grading and packing into punnets to the specification of specific retail customers under their brand identity. So, FP Marketing also does not have brand identity on-pack; value-adding for them is derived from the kind of service elements described above (continual sourcing throughout the seasons, new varietal sourcing, consolidation, packaging, NPD and so forth).

The vertical channel arrangement between FP Grower and FP Marketing, does offer FP Grower something that they do not have from other customer sources, and that is a contractual agreement:

….we have full exclusivity with them (FP Grower)*... in* (for supply to) *the UK.* FP Marketing (DD)

FP Marketing are supplied exclusively with tomatoes on the basis of an annual contract. The contract is signed in October before planting, and delivery of the product is from March until the following October. FP Grower

As a result, FP Grower is happy with this arrangement as it provides security of business that is not forthcoming from other customers, who provide regular business, but not price stability:

FP Marketing is the only customer who buys through contract. Other customers just order product when they need……for every order there is a price negotiation. The price is not stable because when products come from abroad (Spain and Morocco)… (FP Grower is near to ports in Southern Italy) *... the price falls suddenly, leaving no bargaining power.* FP Grower

The arrangement with FP Marketing is much the preferred way of doing business for FP Grower, as they are worried about:

The excessive power of retailers who are not interested in collaborative agreements but only look for lower prices and higher margins. FP Grower

This may be a further reason why FP Grower has not developed customer markets dedicated to varietal type, production method, or regional association; as these things are more difficult to achieve without further contractual/ collaborative agreements. However, FP Grower is looking to expand through exploiting seasonal gaps with 'UK customers interested in winter production' and to add service value through 'further quality and logistic improvement'. They also have more long-term thoughts about horizontal and vertical integration of their own, through producer collaboration with other growers to sell direct to the public; via retailing of a producer group's own range of produce.

Vertical co-ordination through a CM type system does have clear advantages for primary producers like FP Grower and intermediaries like FP Marketing, through the consistency of a planned contractual arrangement. As this further develops, this can allow further market differentiation (through, for example, production method or varietal specialisation or emphasis on regional identity). However, control remains firmly in the hands of the multiple retailer customers, whose name and identity value-adding services are conducted in:

…..supermarkets are very cute (clever)*, they outsource some of their work to us… We do their work for them, whether it in inventory, in marketing, in procurement. We are continually doing that, so it is a cost that we are bearing, ….* FP Marketing (DD)

Fresh produce is still very price sensitive and commodity suppliers/ supply chains substitutable, and it is easy to enter the commodity fresh produce market in supply to retailers:

It (CM) *is very beneficial, but that does not take away from the fact that we live and work in a very marginal* (profit) *industry.* FP Marketing (DD)

But CM based supply does, in return provide some security, as it allows intermediaries and primary suppliers to add-value through service. Most of the value-adding services are conducted by the intermediary (in this case FP Marketing) and that allows:

.....more ownership of the business. FP Marketing (DD)

FP Marketing do acknowledge that there may be scope for more of these value adding activities to take place closer to the country and point of production:

If they (growers/ grower groups) *were able to produce a finished article in Italy, pre-packed in a plastic tray, then you* (they could) *start driving costs out of the business.* FP Marketing (CD)

From this point Italian growers/ grower groups could exploit Italian retail demand for value-added products:

If it works for us (value-adding) *in Northern Europe, why should it not work in the home market? And it is closer, the costs are lower, they can deliver into those markets* (within Italy) *a lot cheaper.* FP Marketing (CD)

However, FP Marketing are quick to point out that to supply the retail market outside of Italy, for example the UK, it would be much harder to replace what they do in terms of providing the consolidation (and all that requires in carrying a continual, multi-seasonal and vast range of products and sources); and all of the value-added services that large UK retailers' require.

8. Concluding remarks

The current competitive structure of the food system is such as to give strong incentives to differentiation strategies. Evidences from the economic literature on market differentiation suggest that the degree and the kind of differentiation (vertical/quality versus horizontal/feature) in the food marketing channel will depend on several interplaying factors: form and preference parameters of the demand function; competitive pressure at vertical and horizontal level; forms of vertical governance structures; power asymmetries between upstream and downstream firms in the channel. In any case differentiation is likely to be associated with high degree of concentration and market power.

A theoretical general finding is that equilibria in differentiated markets are not stable and that a welfare assessment is difficult given that the net welfare effect of differentiation depends on the degree of market power (and the associated monopoly inefficiencies) owned by firms at equilibrium, the consumer preferences for differentiated products and the form of the differentiation cost function.

With regards the market for fresh produce it has been shown that a differentiation strategy in this sector might benefit retailers more than in other sectors, due to the absence of brand policies (and consequently of vertical conflicting strategies) by suppliers. Results from the presented case study seem to be consistent with the theoretical findings. In the sketched marketing channel made of the vertical channel interface between ‘FP Grower’ and ‘FP Marketing’ and the final retailer, the retailer is the leading actor of the differentiation policy and the one who mostly benefits from it. In the analysed case, it is identified that higher product differentiation can add value to the channel value. As predicted by the theory, the differentiation strategy can be carried out because the power asymmetry in the channel favour the party (the retailer) who possess the resources (consumer and market segmentation information, economic strength and managerial skill) required to making the differentiation policy succeed. The theory also predicts that the vertical governance form must be such as to give sufficient incentives to upstream channel partners to comply with the retailer differentiation policy. In the example, the performed annual contractual arrangement gives growers a benefit, in term of sales planning and assurance; which offsets the relationship disadvantages due to the retailer’s buying power. The channel organisation also leaves the marketing intermediary (FP Marketing) the right incentives to incur the specific investment requested for the success of the differentiation policy.

A general result of the study is that when retailers engage in product differentiation it is more likely that the terms of channel relationships shift from collaborative to competitive types with the power imbalance (Sodano, 2006) becoming the disciplinary means by which vertical coordination is achieved and maintained. As a consequence the relationship marketing idea that channel partners look for equitable collaborative relations seems to be contradicted by the evidence that “it may be wise for suppliers to accept some inequity as the cost of doing business” (Corsten and Kumar, 2005), especially when smart large retailers carry out successfully competitive strategies with positive spill over effects on the upstream firms. This viewpoint is concurred by Hingley (2005b) in analysis of fresh food chain supplier-supermarket relationships, where acceptance of channel asymmetry is advocated. Following this, the question to be answered is how much power is allowed for in the system without being a threat for the general social welfare and how to assess the anticompetitive effects of power imbalance in the channel in antitrust contexts?

9. References

Anon. (2007), Sicilian ‘pure’ brand launched, Fresh Info. http://www.freshinfo.com/index 15 February. [accessed 15/2/07].

Allen, S. (2001). Changes in supply chain structure: the impact of expanding consumer choice. In: Eastham, J. F., Sharples, L. and Ball, S. D. (eds), Food Supply Chain Management: Issues for the Hospitality and Retail Sectors. Oxford, Butterworth-Heinemann, pp.314-323.
Avenel E., Caprice S. (2006). Upstream market power and product line differentiation in retailing. International Journal of Industrial Organization, 24: 319-334.
Barnes, S., McGrath, M., Pinnock, A. (1995). The Category Management Revolution. IGD Business Publications, Institute of Grocery Distribution, Watford.
Beath J., Katsoulacos Y. (1991). The Economic Theory of Product Differentiation. Cambridge University Press.
Bourlakis, M. A. (2001). Future issues in European supply chain management. In Eastham, J. F., Sharples, L. and Ball, S. D. (2001), Food Supply Chain Management: Issues for the Hospitality and Retail Sectors. Butterworth-Heinemann, Oxford, pp. 297-303.
Chamberlin, E.H. (1933). The Theory of Monopolistic Competition. Cambridge, Harvard University Press.
Choi C. S. (1996). Price competition in a duopoly common retailer channel. Journal of retailing, 72: 2 117-134.
Choi C. S., Couglan A.T. (2006). Private label positioning: quality versus feature differentiation from the national brand. Journal of retailing, 82: 2 79-93.
Choi, C. S., (1991). Price competition in a channel structure with a common retailer. Marketing Science, 10: 271-296.
Corbin, J. and Strauss, A. (1998). Basics of Qualitative Research. Sage Publications, London.
Corsten, D., Kumar N. (2005). Do suppliers benefit from collaborative relationships with large retailers? An empirical investigation of efficient consumer response adoption. Journal of Marketing, 69: 80-94.
Cotterill, R. W., Putsis, W. P. (2000). Market share and price setting behavior for private labels and national brands. Review of Industrial Organization 17: 17-39.
Dapiran, G. P., Hogarth-Scott, S. (2003). Are co-operation and trust being confused with power? An analysis of food retailing in Australia and the UK. International Journal of Retail & Distribution Management, 31: 5 256-267.
D'Aspremont, C., Gabszewicz J., Thisse J.F. (1979). On Hotelling's Stability in Competition. Econometrica, 47: 1045-1050.
Dibb, S., Ferrell, O. C., Pride, W. M., Simkin, L. (1997). Marketing Concepts and Strategies. 3rd ed., Houghton Mifflin, Boston, Massachusetts.
Ellickson, P.B. (2004). Supermarkets as Natural Oligopolies. Working paper. Duke University.
Fearne, A. and Hughes, D. (2000). Success factors in the fresh produce supply chain: insights from the UK. British Food Journal, 102: 10 760-776.
Glaser, B. G. and Strauss, A. L. (1967). The Discovery of Grounded Theory. Aldine de Gruyter, New York.
Hingley, M. (2001). Relationship management in the supply chain. International Journal of Logistics Management, 12: 2, pp. 57-71.
Hingley, M. (2005a). Power imbalance in UK agri-food supply channels: Learning to live with the supermarkets?. Journal of Marketing Management, Special issue: The marketing imperative for the Agri-food sector, 21: 1/2 63-68.
Hingley, M. (2005b). Power to all our friends? Learning to live with imbalance in UK supplier-retailer relationships. Industrial Marketing Management, 34: 8 848-858.
Institute of Grocery Distribution –IGD (2005). Trends in grocery retailing: The marketing review. Watford, IGD.
Kim N., Parker P. (1999). Collusive conduct in private label markets. International Journal of Research in Marketing, 16: 143-155.

Kim N., Parker P. (1997). National brands versus private labels: an empirical study of competition, advertising and collusion. European Management Journal, 3 220-235.
Kotzab, H. (2001). European developments in efficient consumer response. In Eastham, J. F., Sharples, L. and Ball, S. D. (eds), Food Supply Chain Management: Issues for the Hospitality and Retail Sectors. Butterworth-Heinemann, Oxford, 268-280.
Lee, E., Staelin, R., (1997). Vertical Strategic Interaction: Implications for channel pricing strategy. Marketing Science, 16: 3 pp. 185-207.
Miles, M. B., Huberman, A. M. (1994). Qualitative Data analysis. 2nd ed., Sage Publications, Thousand Oaks, California.
Mintel. (2005). Fresh Fruit and Vegetables – UK. London: Mintel International Group. (Mintel Market Intelligence, May)
O'Keefe, M. and Fearne, A. (2002). From commodity marketing to category management: Insights from the Waitrose category leadership programme in fresh produce. Supply Chain Management, 7: 5 296-301
Patton, M. Q. (1987). How to Use Qualitative Methods in Evaluation. 2nd ed., Sage Publications, London.
Perry, C. (1998). Processes of a case study methodology for postgraduate research in marketing. European Journal of Marketing, 32: 9/10785-802.
Porter, M. (1985). Competitive Advantage: creating and sustaining superior Performance. Free Press, New York.
Salop S.C. (1979). Monopolistic Competition with Outside Goods. Bell Journal of Economics,10: 141-156.
Sayre, S. (2001). Qualitative Methods for Marketplace Research. Sage Publications, Thousand Oaks, California.
Shaked, A., Sutton J. (1983). Natural Oligopolies. Econometrica, 51: 1469-83.
Shaked, A., Sutton J. (1987). Product Differentiation and Industrial Structure. Journal of Industrial Economics, 36: 131-146.
Sodano V. (2006). A power-based approach to the analysis of the food system. In: International agri-food chains and networks, edited by J. Bijman, S.W.F. Omta, J.H. Trienekens, J.H.M. Wijnands and E.F.M. Wubben, Wageningen Academic Publiscers, 199-216.
Spence, M. (1976). Product Selection, Fixed Costs, and Monopolistic Competition. Review of Economic Studies, 43: 217-235.
White, H. M. F. (2000). Buyer-supplier relationships in the UK fresh produce industry. British Food Journal, 102: 1 6-17.

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