Simon D Knox and Helen M F White

Buyer-Supplier Relationships in Fresh Produce Retailing:

Towards a Balanced Portfolio

Dr Simon Knox is Lecturer of Marketing at the Cranfield Institute of Technology, Silsoe Campus. Helen M F White is a final year doctoral student, also at the Cranfield Institute of Technology, Silsoe Campus. The authors gratefully acknowledge the financial assistance of the Ministry of Agriculture, Fisheries and Food (UK).

Address: Department of Marketing & Management
Cranfield Institute of Technology
Silsoe Campus
Silsoe
Beds
MK45 4DT

Tel: (0525) 60428
Fax: (0525) 61527
Buyer-Supplier Relationships in Fresh Produce Retailing:

Towards a Balanced Portfolio

This article extends the IMP interaction approach into horticultural marketing in the United Kingdom. Firstly, the stages in the development of retail buyer-supplier relationships are categorised, secondly, the principle characteristics of the interaction elements are highlighted, and thirdly, the concept of demand and supply portfolios are introduced to explain the strategy adopted by both parties.
The marketing environment for fresh produce retailing has undergone a number of changes in recent years, the most noticeable being the shift in market share from the traditional wholesaler-independent outlets to the major multiple retailers. Today, more than 40% of fresh produce is sold directly through these multiple retailers and only 30% through traditional wholesale markets (Retail Business 1986). This structural alteration in the retail market for fresh produce has induced change in the trading patterns of suppliers, and perhaps more noticeably, the marketing strategies of the major multiple retailers during the late 1980s. These retailers now regard their fresh produce display areas as store-traffic generators. Each of the major multiples site their fresh produce at the store entrance and provide self-service facilities for a wide product range. In general, the produce displayed is class 1 (highest quality), fresh daily and attractively merchandised in order to reinforce the impression of quality and freshness as a pervading characteristic throughout the store. Each of the major retail chains now brand their
fresh produce with their company logo either in prepack or free-flow-to-bag format (Institute of Grocery Distribution 1987).

The advent of centralised buying functions in this highly concentrated and competitive retail environment (8 chains now represents 57% of the UK grocery trade, IGD 1987), coupled with the demand for high quality produce, has increased the pressure upon fresh produce buyers to source suitable suppliers. In turn, buyers have extended this pressure to existing suppliers, requiring them to meet the necessary quality specifications and also to provide continuity of supply. As a result, both retail buyers and their suppliers have experienced changes in the nature of their business relationships in pursuit of growth objectives through market share gain.

The development of sustained buyer-supplier relationships is a relatively new phenomenon in fresh produce retailing in the UK. For this reason, our research has focused upon this aspect of horticultural marketing as a prelude to the harmonisation of markets in 1992 and the prospect of increased competition. The purpose of this paper is to report upon our preliminary findings based upon a representative sample of both retailers and their fresh produce suppliers in the UK.
The Development of Buyer-Supplier Relationships: A Literature Review

For the purposes of this paper, the researchers have viewed horticultural marketing as an industrial marketing activity. Webster (1979) suggests: "industrial marketing is directed towards specific customers while consumer marketing is directed towards the mass market". Since the aspect of horticultural marketing under examination is customer specific (ie. to multiple retail buyers), we feel it has more in common with industrial rather than consumer marketing - despite the fact that the product is eventually sold to the mass consumer market.

Prior to the IMP initiative, the industrial marketing literature addressing the dynamics of buyer-supplier relationships was fairly sparse. Wilson and Mummalaneni (1986) highlight the few notable studies which have been reported. The work by Williamson (1979) is cited and criticised for the lack of focus upon the development of relationships. Wilson attributes this, in part, to the "erroneous assumption in traditional economic theory that the discrete transaction paradigm is what describes the market transactions best". Wilson does comment, however, that more recently Williamson has modified his views and now recognises the importance of differing interactions
associated with a range of marketing and purchasing situations.

Wilson also cites the research by Wind (1970) on "industrial source loyalty". From this study of an electronics firm involved in the purchasing of industrial components, Wind established that only 6% of such purchases were from an "isolated source". Wind concluded from this that the firm exhibited a high degree of source loyalty.

The work by Cunningham and Kettlewood (1976), which examined the degree of source loyalty in the freight transport market, also concluded that source loyalty amongst the companies surveyed was extensive. Wilson comments .......... "whilst they (Cunningham and Kettlewood) could not isolate the importance of any single factor in determining source loyalty, the authors suggested that past experience of the buyer with various suppliers emerged as one of the major influences".

In each of the three cited works, the authors acknowledge that buying and selling transactions are not discrete "one-off" events. Both Wind and Cunningham have identified the behavioural characteristic of 'obligation' or 'loyalty' which stems from past transactions and the bonding between buyer and supplier. However, none of these studies
attempted to develop an understanding of the mechanism of buyer-supplier relationships.

More recently, Dwyer, Schurr and Oh (1987) have reported upon this aspect of exchange, drawing comparisons between discrete and relational exchanges by analogy with casual and marriage relationships respectively. They highlighted a mechanism called the 'Relationship Development Process Model'. This model recognises the temporal development of buyer-seller relationships and has five sequential components:

i. Awareness
ii. Exploration
iii. Expansion
iv. Commitment
v. Dissolution

In identifying the importance of the development of relationships between buyers and suppliers, this work can be regarded as having features in common with the approach developed by the IMP group which specifically models the nature of relationships between buyers and sellers on an international basis.
The Interaction Approach

The Interaction Model (Appendix 1), developed by the IMP group (Hakansson 1982), is the result of extensive research conducted over a number of years in five European countries. The group investigated a large selection of industrial companies engaged in the sale and purchase of a range of industrial products. The model subsequently developed represents the quintessential features found to be pertinent to buyer-seller relationships. Four elements of interaction are identified:

i. process
ii. parties
iii. environment
iv. atmosphere

In this original work the dynamism of the development of buyer-seller relationships is also established (Ford, in Hakansson 1982). Ford postulates five stages in the development process:

i. the pre-relationship stage; during which an evaluation of a new supplier is made.
ii. **the early stage**; in which negotiation of a sample delivery is made.

iii. **the development stage**; where a contract is signed and deliveries begin.

iv. **the long term stage**; after several major purchases and large scale deliveries have been made.

v. **the final stage**; when long established stable markets have been achieved.

This dynamism is later described by Yorke (1988) as "the objectives and processes adopted by each party towards the other which change over time and will involve continuous adaptations to each others activities. The accent is upon two active parties in the relationship each of whom may initiate, develop or discontinue it".

In a subsequent paper by Ford (1984), it is suggested that certain changes are likely to occur throughout each of the development stages. In essence, these changes refer to a reduction in uncertainty and distance between the two parties due to an increase in commitment, adaptation and experiences gained.
Applying the Interaction Approach to Horticultural Marketing

Applying IMP approach to industrial purchasing relationships provides a suitable framework for our study of horticultural marketing since the model offers wide scope for analysis (Holden 1988). This extends from the central unit of analysis, 'the buyer-supplier exchange', to the entire network of relationships that exist in fresh produce in the UK. The dyadic approach adopted facilitates a 'mirror-like' analysis of both parties so that they can be examined as active participants in the relationship. Finally, the IMP approach is flexible across industry sectors, as Wilson and Mummalaneni (1986) point out: "The IMP model assumes.... there are significant differences in the nature of relationships depending upon the product (raw materials, components etc), technology (batch production, process technology etc), and the market (oligopoly, monopoly etc) being examined".

In our pilot studies it was found necessary to make a number of modifications to the original model in order to adapt it to the horticultural marketing environment. These modifications were reported in detail in a previous paper (White and Knox 1988) so we do not propose to discuss them further, as they remained unaltered during the field research. This field research has now been completed and
covers both the nature of relationships and the content of negotiation. However, for the purposes of this communication, our discussion will be restricted to the nature of buyer-supplier relationships. Three aspects of these relationships are reported upon in detail. Firstly, we have categorised the stages in the development of retail buyer-supplier relationships. Secondly, we highlight the principle characteristics of the interaction elements displayed in these relationships and, thirdly, the concept of a demand and supply portfolio is introduced to explain the strategy adopted by both buyers and suppliers in this market.
The Investigative Method:
Data Collection and the Sample Frame

A structured questionnaire was piloted amongst expert opinion drawn from the industry. This resulted in two separate questionnaires being developed since the attitudes and perspectives of buyers and suppliers were found to be different. However, these variations in design were kept to a minimum so that comparative analysis could be carried out, and the detection of differences in perceptions of the same relationship made possible.

In the full survey, 14 senior retail buyers were interviewed by the researchers and the questionnaire completed over a one hour period. During this process, each respondent identified their main suppliers by name which then enabled us to determine the supplier sample frame before the supplier questionnaire was administered. As a result, the 14 suppliers interviewed were chosen to match these buyers so that both sides of the same relationship could be explored. The supply-side respondents consisted of senior marketing executives from both limited companies and co-operative growing organisations.
The aggregate data collected from the 14 dyads in this way is nationally representative, since the views of the sample frame account for approximately 75% of all UK multiple sales of fresh produce (by volume) and approximately 65% of their suppliers for the product fields under examination.

In order to reduce the data analysis for this preliminary communication, the relationships in one product field have been selected. As a result, the sample frame has been reduced to 8 retail buyers and 6 suppliers. Nonetheless, this sample frame still represents the views of just over 70% of fresh produce retail sales and just under 60% of their suppliers for this particular product field. Since we have been able to include all the major retailers and their key suppliers, we are confident that our findings can be regarded as nationally representative.

As the industry response to our research initiative has been very enthusiastic, we can also report that both sides of the 22 relationships discussed are represented so that where differences occur, this stems from differing perspectives rather than sample frame bias.
Towards a Portfolio of Relationships:
The Empirical Evidence

In order to make sense of the buyer-supplier relationships, the researchers first tabulated all the interactions between the retail buyers and their suppliers in the sample frame. Figure 1 provides a summary of these relationships.

This matrix also illustrates how the researchers were able to divide the buyers and suppliers into two groups depending on the volume of produce bought and sold. A natural clustering of buyers and suppliers was observed, in each case this was above and below a volume band of 3,800 - 4,000 tonnes per annum. Group 1 buyers correspond to the largest multiple grocery retailers in the UK, and group 2 buyers are the smaller multiple retailers (based upon their national percentage share of the fresh produce market). This also applies to group 3 and group 4 suppliers ie. large and small suppliers respectively, based upon their national share of UK multiple supply.

The letters shown in the supplier cells of the matrix represent the retailer accounts held by that particular supplier and, hence, show the existence of a relationship. The underlined letters in these cells indicate a key account based upon the perceptions of the retailer. With one
Figure 1
Summary of Buyer-Supplier Relationships

Legend:
A-H  Buyers
1-6  Suppliers
-  The Buyers Key Accounts
exception (retailer H), each of the retailers has developed a relationship with two or more suppliers. Retailers A, B and D currently have 4 suppliers to meet their volume requirements and to spread risk. Interestingly, each of the retailers depend upon a group 3 supplier to provide their main volume (key account). None of the group 4 suppliers had been selected to do this despite the fact that 2 of the 3 have the necessary volume to do so on an annual basis. This may, however, partly reflect the fact that these suppliers did not particularly wish to develop too close a dependency on any one particular retailer. With the exception of supplier 6, each supply organisation has been successful in developing trading relationships with two or more of the major retailers. Group 3 suppliers each have between four and six buyer relationships and represent a key account to two or more retailers.

It is apparent that as retailer buying power has been concentrated through acquisitions and mergers (IGD 1987), suppliers that are both willing and able to meet the retailer's requirements, have been careful to ensure that their supply is balanced across a number of these accounts. In this way, negotiation strength can be maintained and dependency reduced to an acceptable level.
Having established and tabulated these buyer-supplier relationships, the researchers then attempted to summarise the stages in the development of relationships from both the buyers' and suppliers' perspective.

In piloting the questionnaire it was found necessary to provide 6 categories to describe the nature of the relationship. These consisted of the five previously identified by Ford (1980) and a sixth described as a "declining relationship". In the event, the respondents chose to identify only four types of relationships:

i. Uncommitted
ii. Developing
iii. Mature
iv. Declining

Although the buyer and supplier groups classified the development process similarly, they did not perceive all their relationships as being equivalent. At an aggregate level, the eight buyers viewed the 22 supplier relationships to be:
Whereas the suppliers viewed the same relationships as:

2 uncommitted
6 developing
11 mature
3 Declining

This discrepancy in perception between buyers and suppliers, particularly for uncommitted and declining relationships, may reflect a less tolerant retailer attitude towards what they perceive as an unstable supply situation. Whereas suppliers, in these cases, may be more sensitive towards shifts in relationships almost before any overt retailer action is initiated.

Contrary to all our expectations, horticultural buyer-supplier relationships seem to be relatively long-lived, spanning 8 years on aggregate. This is similar to the findings of Hakansson et al (1982) in their examination of industrial marketing and purchasing relationships.
Closer examination of the data for further evidence of the longevity of a particular type of relationship did not prove particularly elucidating. For instance, from the buyer's perspective, the length of time for an uncommitted relationship could be as much as 15 years! In contrast, from the supplier's perspective, a declining relationship could occur over a 14 year period.

The conclusion one can draw from this is that the stages in the development of horticultural marketing relationships are not particularly temporal by nature. However, this does not mean that an evolutionary process in the 4 stages does not exist. The characteristics that determine the stages of the relationship are clearly based upon other interactive elements.
Principle Characteristics of the Four Interaction Elements for Horticultural Marketing

i. Communication and Personal Contacts

Due to the nature of the product, communication is regarded by both parties as fundamental to the process of negotiation and exchange. Without exception, the two parties discussed price and volume on a weekly basis. However, in unstable relationships, that is both uncommitted and declining, buyers and suppliers were likely to be in communication on a daily basis. All negotiations were carried out over the telephone and subsequently confirmed in writing. There are never any contractual agreements drawn up between buyers and suppliers of horticultural produce.

In the initial stage of securing volume off-take from retail companies, the marketing executives from the supply organisation visit senior buyers at their head office locations. However, as a general principle, supply personnel never visit the head offices of retail companies except in extenuating circumstances; in situations where the retailers perceive that a major supply or quality problem has arisen. Under normal conditions, senior buyers are likely only to visit key suppliers on an annual basis.
Outside this formal business context, group 1 retailers (the large supermarket chains) appear to have a more enlightened policy towards social exchange, in the sense that they allow informal contact between the fresh produce buyers and their suppliers, although it very rarely occurred in practice. Across group 2 retailing companies, only one of the four supported such a policy. When probed, these respondents suggested that such contact may hinder the success of formalised transactions.

From this we have concluded that because of the high frequency of negotiating communications between the two parties, the need and, therefore, the occurrence of informal exchanges between buyers and suppliers is largely negated.

ii. Company Participation

In considering the 'party' element of the Interaction Model, both supply and retail organisations structure their decision making across three management levels. This is illustrated in figure 2. In the retail management structure, each level of decision making - policy, strategic and tactical - is shared across four levels of management but for any one decision, only two strata are involved. In contrast, amongst suppliers, policy decisions are made at the chief executive officer level, whilst strategic supply
Figure 2
Buyer-Supplier Management Structures:
Decision Levels

Retail Company

Supply Organisation

TACTICAL

Strategic

POLICY

Policy

Chief Executive Officer

Marketing Executive

Divisional Director

Departmental Manager

Senior Buyer

Technical Quality Control Management

Buying Controller

Sales Executive

Production Manager

Operations Manager

Growers
decisions are determined by a committee consisting of the general managers, representatives from middle management and often the growers themselves (this is because many of the suppliers are co-operative based). Tactical supply decisions are made amongst middle management of the supply organisation. There were no discernible differences between the structures of the group 1 and 2 retailers, nor between the group 3 and 4 suppliers.

In a mature buyer-supplier relationship the level of inter-company contact is extensive. Figure 3 is a summary of the regular contract patterns that exist between the management of both organisations. Each line connecting the two organisations represents a regular linkage between the managers in both organisations. It can be seen that individual managers from the supply organisations are dealing with more retail personnel. On average, each supply manager is regularly dealing with 5 managers from the retail company, whilst on the demand side, each is dealing with 4 supply personnel. This is partially a function of a flatter management structure and less personnel in the supply organisations as compared with the retail companies. In total, the researchers measured over 30 regular linkages which, perhaps, helps to explain why the relationships are unexpectedly long in formation and duration.
Figure 3
A Summary of Buyer-Supplier Management Contact Patterns

Retail Company

Buyer
Assistant Buyer
Senior Buyer
Technical Quality Control Management
Buying Controller
Divisional Director
Departmental Manager

Supply Organisation

Marketing Executive
Production Manager
Operations Manager

General Manager
Growers

Chief Executive Officer

☆ Legend: Concerned with aspects of growing, therefore no direct contact with retail company, however, directly involved in strategic decision making, see figure 2.
iii. Chains of Distribution: The Buyers Perspective

Each retailer supplies its stores from regional central depots. Generally, the group 1 retailers own and manage the depot sites and their cold-chain fleets which transport the fresh produce to the stores within its region. In contrast, group 2 retailers, are served by contracted cold-chain distributors and do not own their regional depots. Figure 4 illustrates the chains of distribution which exist between a retailer and its suppliers. Each supplier is designated a particular regional depot which is consistent with retail supply policy but may not necessarily be within close proximity to the supplier's production site/depot. Each supplier usually only supplies one depot per retail customer.

In order to be able to supply these retailers, each supplier must meet a number of criteria:

Firstly, they must have access to a cold-chain storage and distribution system. Generally, suppliers contract out to cold-chain distributors in order to service these regional depots. Secondly, each supplier organisation must be able to supply the necessary grade 1 quality produce which is set to a higher standard than EEC regulations. Thirdly, supplier organisations must have the necessary post-harvest
Figure 4
Chains of Distribution: From Source to Store

S: Supplier
RCD: Regional Central Depot
RS: Retail Store
RHO: Retail Head Office
technology. This includes facilities for packaging and labelling under the retailer's marque as well as bar-coding for the retailer's embryonic EPOS systems.

We concluded from this environmental analysis, that provided the supplier had the appropriate technology to service the retailer's depot according to requirements, neither party was actively involved in developing further vertical links; the depot was regarded as the point of exchange and ownership of the produce.

iv. Commitment to the Relationship

In response to questions regarding power and dependency, buyers and suppliers were unequivocal in their responses. Both parties recognised the power base of the retailers in conditioning the relationship. However, given the longevity of the relationships, and the fact that 5 of the 6 suppliers had two or more multiple accounts to service, it is apparent that the dependency is not quite as one-sided as respondents claimed.

Despite the fact that these retailers are operating in a marketing environment where there are a limited number of suppliers, the researchers were surprised by the high level of responsibility that these individual retailers displayed
towards their suppliers. This may, in part, be accounted for by the fact that both parties also have an increasing interdependency if future growth prospects are to be realised. It is likely that the traditional wholesale channels will progressively decline if they continue to trade the inferior quality produce they are currently being offered by these and other suppliers.

The retailer's perception of the 'total service level' (TSL) provided by their key suppliers was extremely good. We detected a co-operative, yet guarded, view of their working relationships with individual suppliers.

The retailer's expectations of their suppliers was to provide class 1 quality produce on a consistent basis throughout 12 months of the year. This expectation requires suppliers to make provision of produce either directly from other UK (or overseas) supply sources or from importers located in the UK during periods of short supply of their own produce. Retailer respondents were also quick to criticise suppliers should supply problems arise. This can be attributed directly to the nature of the product, since supply problems at source have immediate consequences in store.
On the other side of the relationship, the suppliers focused upon the expectation of receiving weekly schedules from their retail buyers. In recent times, these multiple retailers have also attempted to introduce a seasonal programme of supply requirements to enable supplier management to plan their production more precisely. This innovation has yet to be fully operationalised, but once achieved, should ease considerably the supplier's current planning problems. This increased commitment to long-term planning between the buyer and his supplier is perceived by both parties as an advancement in the level of security that had previously been implicit in their relationship.

Towards a Balanced Portfolio

Analysis of the average annual volumes called off by the retailer respondents, based on the relationship status, indicates clearly that tonnages have increased as the relationship with the supplier has developed (figure 5). As stated earlier, this development in the relationship did not appear to be a time-based phenomenon, more one related to volume expectations. From the above evidence it can be concluded that if sustainable changes in the volumes transacted are observed, then this is likely to give a stronger indication of a change in the retailer's perception of the relationship status.
Figure 5
Volume Expectations and Relationships:
The Buyers Perspective
In pursuit of volume growth, both parties are endeavouring to develop their existing relationships through to the mature stage. Implicit to this strategy is the concept of a portfolio of relationships (Cunningham 1982).

Figure 6 illustrates the expected sequencing of the development stages in this market. In the full cycle, there are four barriers to overcome and equally four exit points to be avoided. Since both parties are cognisant of these decision choices during times of change, we were not surprised to find both retail buyers and their suppliers were apparently operating on a portfolio basis, as Cunningham (1982) found in other markets.

Looking at both buyers and suppliers separately (figure 7), their portfolios seem extremely well balanced, with both parties perceiving their highest proportion of relationships to be in the mature stages (this cell represents 63% of retail annual volume offtake, and 54% of supplier's offtake respectively).

In attempting to distinguish between the four groups (viz. figure 1), group 2 retailers appear to be the most vulnerable. Between them, only one of the four respondents indicated that they were working within a mature relationship with one of their suppliers. In contrast,
Figure 6

Full Cycle of Relationship Development

- Developing
- Uncommitted
- Mature
- Declining
<table>
<thead>
<tr>
<th></th>
<th>Developing</th>
<th>Mature</th>
<th>Declining</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supplier Matrix</strong></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Buyer Matrix</strong></td>
<td>6</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td><strong>Developing</strong></td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Uncommitted</strong></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Declining</strong></td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Figure 7
Buyer and Supplier Relationship Portfolios
group 1 (the large retailers), had the most balanced portfolio, with 13 of their 14 stated relationships in a developing or mature stage. This is what we had expected to find from this group, given their observed professionalism in developing their consumer marketing strategies. It is apparent also that horticultural suppliers have been successful in positioning themselves effectively in a retailer-driven marketing environment.

Conclusions

The findings we have drawn attention to in this paper are, in many ways, contrary to the expectations we had developed during the early stages of research. In highlighting the main points of this preliminary communication, we have observed that the relationships between buyers and suppliers in this market sector were both highly interdependent and concentrated.

Because of the increasing volume of high quality produce required by the retailers, they are obliged to work with a limited number of large suppliers who are capable of producing sufficient volume to meet these needs. As a consequence, there appears to be a reluctance to make rash changes in either supplier or retailer affiliations. Consequently, the average duration of a buyer-supplier
relationship in the horticultural market was found to be about 8 years.

The contact patterns developed between parties, particularly in a mature relationship, are highly sophisticated with over 30 regular linkages. This is, perhaps, an indication of the importance of the product to UK retailers seeking a marketing edge as purveyors of quality produce.

Three discrete management decision levels were observed within both the supply and retail organisations. Whilst the corresponding management structures were found to differ, it was evident that both parties were well placed to respond to strategic and tactical initiatives on either side.

Although time is one element in ringing the change in buyer-supplier relationships, it did not appear to be a dominant factor. It is our belief that the relative volume transacted is a more accurate indicator of the status of the relationship: 3 of the 4 stages in the sequence were characterised by an increasing annual volume of transaction, whilst the fourth showed a decline as the relationship declined.

As a consequence, both retailers and suppliers are cognisant of the need to balance their relationships on a portfolio
basis. Both parties have shown to be adept in this strategic posturing, particularly the large suppliers who are operating effectively in a marketing environment that was previously thought to be a retailer stronghold.
References


APPENDIX 1

An illustration of the interaction model