

How well are chain customers known and understood? Exploring customer horizons

Christine Storer
Muresk Institute of Agriculture

Elesbeth Holman
University of Twente

Ann-Charlott Pedersen
Norwegian University of Science & Technology

ABSTRACT

The importance of a market orientation as the basis for meeting customer expectations is well known in marketing (Kohli and Jaworski 1990). The basis of this orientation is an understanding of who the customers are and what they want. While it may be expected that all organisations can identify customers through the chain and the final end consumer, the organisations in this case study did not. Many could identify categories of customers and the specific requirements they had, but not the customers' names. Those organisations downstream and closer to consumers had a greater understanding of who the customers were and what end consumers were looking for. Upstream suppliers were only aware of downstream customers if they had a good reason to such as on-going discussions to meet major quality specifications through the chain. Based on the case study, it is hypothesised that the culture of the organisation has an impact, with some organisations more aware of the importance of understanding customer requirements and having a focus on meeting those where ever possible. In addition, there was some variance in the attitudes of individuals, with purchasing departments more focused on cost minimisation and efficiencies, and marketing more focused on meeting customer requirements and effectiveness. There was also a difference in customer knowledge and understanding at an individual level with those with greater "boundary spanning" roles having greater exposure to customers and therefore having a greater understanding.

INTRODUCTION

The importance of a market or customer orientation as the basis for continuously creating superior value for customers and profitability for a business is well known in marketing (Kohli and Jaworski 1990; Narver and Slater 1990; Jaworski and Kohli 1993; Kohli, Jaworski and Kumar 1993; Wren, Souder and Berkowitz 2000). According to Narver and Slater (1990 p21), "*customer orientation includes all the activities involved in acquiring information about the buyers in the target market and disseminating it throughout the business(es)*". Kohli et al. (1993 p467) extend the definition to also

include organisation wide action and responsiveness to the intelligence. A customer orientation requires that a seller understand a buyer's entire value chain (Day and Wensley 1988). When an organisation is upstream in a chain of organisations, it may be several steps removed from the final consumer. The upstream supplier needs to be able to identify each of the customers downstream in the chain as well as the end consumer and to understand what each of them wants. The question is, how well do upstream suppliers know each of the downstream customers and who the end consumer is? Can suppliers identify what each of the customers and the consumers are looking for?

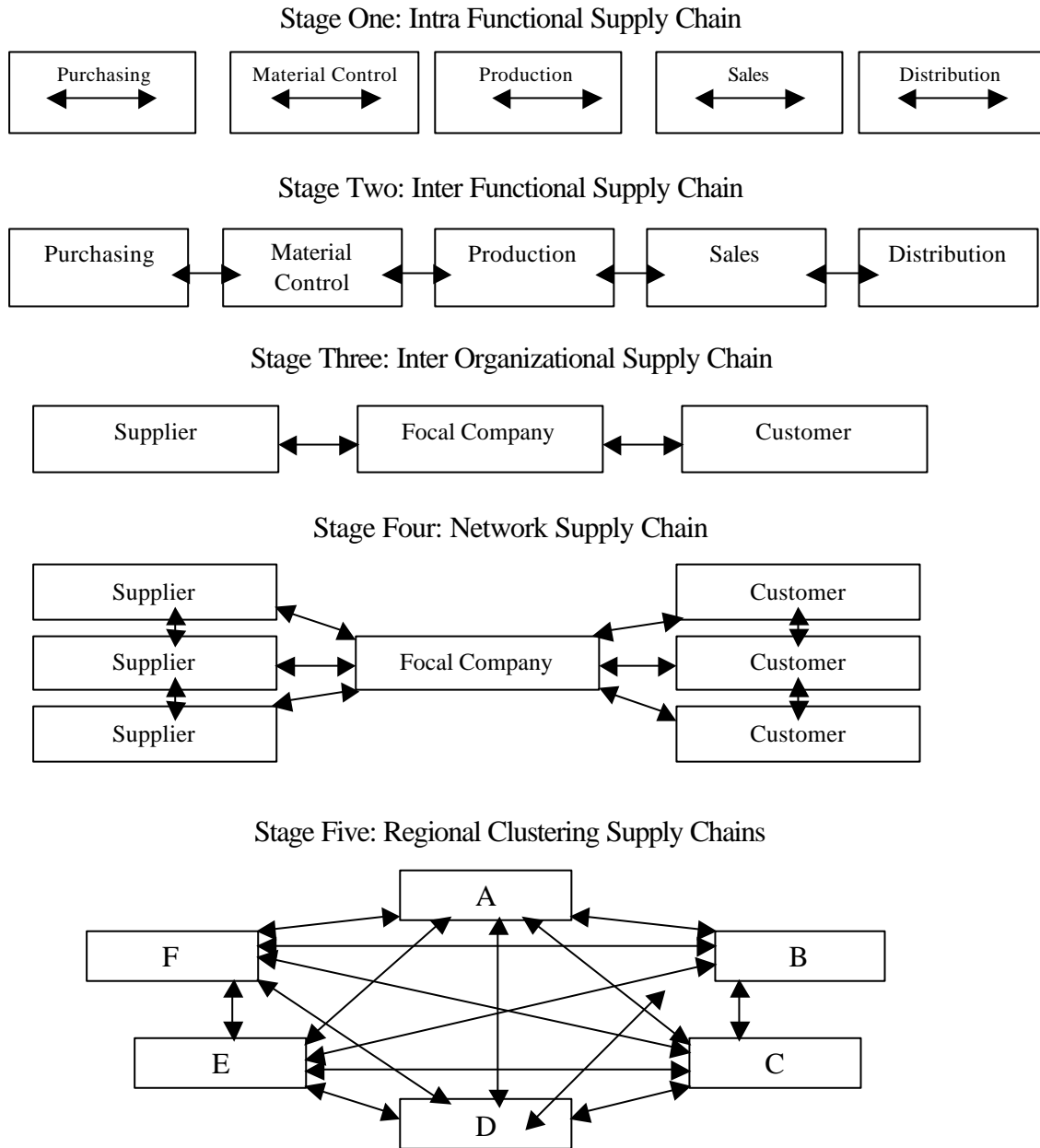
The concept of awareness of customers downstream bears some resemblance to concepts of connected relationships and related network horizons and network contexts used by the Industrial Marketing and Purchasing (IMP) Group. These concepts have similarities with the way chains and networks are defined in Supply Chain Management (SCM).

CONNECTED RELATIONSHIPS, NETWORK CONTEXT, NETWORK HORIZON AND ENVIRONMENT

Within the SCM perspective, connected relationships would be between those organisations involved in getting a related set of products, services and information from the original suppliers to the end consumers. While it depends on the purpose of the research, generally organisations owning the products and bearing risks are included in the chains described and those organisations providing supporting services are excluded (eg transport & logistics, storage, finance, insurance, export/import, research, government). The range of organisations/parties/actors included in chains studied can also vary depending on the research project. The supply chain models shown in Figure 1 are argued to be supply chains of increasing complexity and holism Hines (1998 p7). The network supply chain has also been called a 'netchain' by Lazzarini, Chaddad & Cook (2001).

While the scope of chains may have been defined in SCM, no research was found on chain members' general understanding of who the other members of the chain were. Within the IMP perspective the concepts of which relationships and firms are connected to the focal firm and/or a focal relationship, and what these relationships consist of, have been explored.

Figure 1. The Supply Chain Framework Model



The IMP perspective focuses explicitly on the interface between a firm and its environment by analysing the organisation's connected relationships with other organisations. Many studies confirm the conjecture that relationships (and firms) do not exist in isolation, but rather that they are connected to a network through direct and indirect relationships (Laage-Hellman 1989; Axelsson and Easton 1992; Blankenburg 1992; Anderson, Håkansson and Johanson 1994; Havila 1996; Pedersen 1996; and Ritter 2000).

Industrial structures are conceptualised as networks – networks being a specific organisational form and not only an analytical tool or metaphor (Håkansson 1997). Networks are assumed to have no natural boundaries. By rejecting the idea of natural boundaries, the setting of arbitrary boundaries have been paid some attention within the IMP perspective. Such efforts have, for example, led to the formulation of concepts such as *network context*, *network horizon*, and *environment*. These concepts, which refer to different boundaries of or within a network, have been proposed as an alternative to the ‘traditional concept of environment’. Usually, the distinction between a firm and its environment aims to capture the conjecture that there is a clear dividing line separating a firm from everything that is not-the-firm (Snehota 1990 p142). Within the IMP perspective, the boundaries of firms are conceived as being blurred by relationships which, furthermore, are connected. Therefore, it is hardly surprising that the relation between the firm and its ‘environment’ has led to the formulation of new concepts. These concepts can be used for describing and analysing how a firm relates to its ‘environment’ which, however, is spilt-up into the above-mentioned concepts of network context, network horizon and environment.

Based on Håkansson and Snehota (1989) and Snehota (1990), Anderson, Håkansson and Johanson (1994 p4) discuss the concept of *network context* – “*the part of the network within the horizon that the actor considers relevant is the actor’s network context*”. The context of a firm comprises other firms and relationships (Snehota 1990). The firms and relationships in a firm’s network context are its *direct* counterparts and relationships as well as *indirect* relationships and counterparts. Indirect relationships and firms must be taken into account because “*other actors apart from those with whom direct exchange relationships are maintained, affect the behaviour of the business enterprise in relationships it maintains with others and on which depend the results*” (Snehota 1990 p145). Indirect relationships provide a link between dyadic relationships and networks, since “*an indirect relationship is the relationship between two firms which are not directly related, but which is mediated by a third firm with which they both have relationships*” (Easton 1992 p15).

Both Snehota (1990) and Anderson, Håkansson and Johanson (1994) include in the network context, all actors which the firm ‘considers relevant’. By using the criterion of ‘relevance’, it is stressed that the *network context* is a matter of the firm’s ‘choice of

perspective' which, in turn, is related to the firm's (actor's) cognitive processes (Snehota 1990 p147). By stressing choice, there must be something which is disregarded – firms must be aware of more than they view as being immediately relevant to consider as a basis for their actions. This seems to be the reason why a network context is conceptualised as being enveloped by a *network horizon*. The network horizon of a firm is defined by Anderson, Håkansson and Johanson (1994, p4) as “*how extended an actor's view of the network is*”. Hence, a network horizon comprises those other firms and relationships of which a focal firm is aware - whether or not it considers them relevant. So far, few attempts have been made to investigate the network horizons of firms, the exception being a study by Salmi, Havila and Anderson (2001) who discuss the network horizon of a firm in relation to acquisitions.

Where the horizon ends, the *environment* starts. As Anderson, Håkansson and Johanson (1994, p4), argue “*actors have bounded knowledge about the networks in which they are engaged [..]. This is due to not only the network extending farther away from the actor but also the basic invisibility of network relationships and connections*”. As Snehota (1990, p146) claimed, “*there is a 'residual' beyond the context, beyond the horizon, and that is environment. The environment beyond the context is an entity in which actors cannot or are not identified.*”

In summary, the part of the overall network, which a single firm is not aware of, is its *environment*. The part of the network, which a single firm is aware of, is its *network horizon*. In addition, the part of the network horizon, which the firm considers relevant, is the firm's *network context*. With the emphasis of this research on customers only in the network, the term “customer horizon” is used to describe supplier's awareness and knowledge of downstream customers. Those considered relevant would form the organisation's “customer context”.

Anderson et al. (1994 p4) suggest that an organisation's view of which other organisations are involved in their network depends on the actor's experience as well as structural network features. As a result, it changes over time. In addition they argue that actors have bounded knowledge about the networks in which they are engaged, due not only because it extends farther away from the actor, but also due to the basic invisibility of network relationships and connections. The question remains of how extensive are

organisations' network horizons. Before this question can be examined, the concept of network horizons need to be defined operationally.

Studies on connected relationships are examined to get some guidance on how to get an operational definition of network horizons. Research on connected relationships have looked at classifying the types of firm or organisation which can be a third party to a focal relationship between two firms (Blankenburg 1992; Anderson, Håkansson and Johanson 1994). Blankenburg (1992) also investigated how many types of third parties firms were aware of, on average, in relation to a focal relationship. In the cross-sectional study of 85 supplier-customer relationships, Blankenburg identified 312 connected relationships in total - 101 connected via the supplier (the focal firm) and 211 connected via the customer. Since the informants in Blankenburg's study are representatives of one of the firms involved in a focal relationship, we can discern between (a) third parties which are connected via the focal firm and (b) third parties which are connected via the focal firm's counterpart in the focal relationship. Blankenburg's study suggests that, on average, a focal firm is aware of (a) third parties in 1.2 categories for each relationship connected via itself and (b) third parties in 2.5 categories for each relationship connected via the counterpart. Since the study looked at categories of relationships and does not operate with specific, identifiable third parties, it is neither possible to identify how many actual third parties are connected to a focal relationship, nor to identify possible 'third parties in common'.

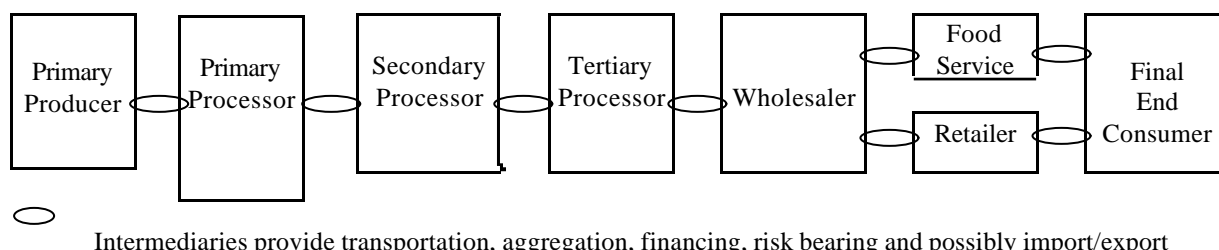
Holmen and Pedersen (2001 p4) in a literature review of research on network horizons concluded that *"we still know little about, (1) types of third parties and connected relationships firms are aware of as well as (2) the types of third parties and connected relationships firms are not aware of. Furthermore we know little about (3) the type and depth of knowledge firms have regarding third parties and connected relationships, since the studies presented above either focus on the quantitative aspects (how many connected relationships), or only draw attention to some of the involved firms direct and connected relationships. In other words, we still have very limited insight into the network horizons of firms as well as the network contexts of relationships, and how relationships connect to form network structures."* As a result they conducted a case study of a focal firm's network horizon to determine how aware individuals in the firm were of counterparts and third parties (counterparts of direct counterparts).

Holmen and Pedersen (200) studied the firm's relationships with suppliers, competitors and research institutes as well as customers. Telephone interviews were conducted with individuals who had e-mail addresses on the firm's homepage as they were expected to have contact with the firm's counterparts. Respondents were asked to name counterparts and third parties. Holmen and Pedersen (2001 p16) found that their case study firm (a) knew relatively little about relationships which were connected to its direct relationships and the third parties involved in them, and (b) that it only interacted directly with some of those important third parties that it knew of. The focal firm was aware of one connected relationship/third party per direct counterpart (respondents named 23 important direct counterparts and 23 indirect counterparts/third parties). When Holmen and Pedersen compared their results to research by Blankenburg (1992), they suggested that it may be easier to identify a category of third parties than to specifically name them. Therefore, it would seem that a network horizon should be studied in terms of specifically naming counterparts as well as general categories.

The emphasis in Holmen and Pedersen's (2001) network horizon research was on the direct and indirect network of relationships across a wide range of categories (suppliers, competitors, customers and research institutes). With the aim of this research to focus on customer orientation, the group of primary interest was customers all the way through the chain to the final end consumers. The aim is to examine awareness and knowledge of customers and final end consumers through the chain. Therefore the term "customer horizon" rather than network horizon is used.

The analysis of a network of chains ('netchain') also means further terms need to be defined. In looking at the inter-organisational food chain from the perspective of getting food to the end consumer, conceptually it may look like Figure 2.

Figure 2. Inter-organisational Food Chain



Those organisations closer to the consumer than the focal organisation of interest are known as 'downstream' and those closer to the primary producer are known as 'upstream' (Trienekens 1999). However, descriptions solely based on 'upstream' and 'downstream' do not provide a sufficient vocabulary to explain the findings. In looking at long chains, the term 'stages' is proposed to measure how many organisations are upstream or downstream from the focal organisation of interest. This allows for a description of the 'length' of the customer horizon as being either short (with awareness of only a few of the possible stages) or being long (with awareness of most/all of the possible stages). Length can also be described as part of the way, half the way, most of the way or all of the way to the final end consumer.

A term was also needed when discussing the number of customers identified at each stage. The communication terms 'broad-band' and 'narrow-band' (Bensaou 1999) were adapted in proposing the term 'breadth' to measure how many customers the focal organisation could identify. This allowed for descriptions of the 'breadth' of the customer horizon as broad or narrow.

In applying the concepts of customer horizon length and breadth to the concept of customer orientation, the following preliminary propositions were made. It was expected that those organisations downstream and closer to consumers would have a greater understanding of the impact of changing consumer demands and importance of understanding consumer requirements. By comparison, upstream organisations may get many reasons for fluctuating demands including production, transportation and supply availability problems as well as fluctuating customer demands. From this, one may suppose that downstream customers would have a greater awareness of the importance of understanding customers and a generally greater market orientation. It was expected this greater market orientation would be evidenced by broader customer horizons and long customer horizons that extended through to the final end consumers. Therefore, it might be expected that downstream customers would also have broader customer horizons and customer horizons that extended through to the end consumer. It would be expected that customers significantly important in terms of volume, value or strategically (Anderson, Hakansson and Johanson 1994) would be identified rather than all customers when evaluating customer horizon breadth.

In evaluating the results of their research Holmen and Pedersen (2001) suggest that perhaps the possible detrimental effects arising from not fully knowing the detail of the network relationships may be “*mitigated by their direct counterparts performing a connector function – involving competitive as well as complementary aspects*”. It can allow itself to be partially ignorant about the industrial network of which it forms a part if the direct counterparts provide a co-ordination function. They define the coordinating functions as:

1. Joining (enabling direct co-ordination on a limited number of issues);
2. Relating (enabling co-ordination between the focal firm and a third party via the counterpart); and
3. Mediating (enabling co-ordination between the focal firm and the third party without them having any knowledge of each other).

Other authors have also discussed the mediation function of firms in relationships. Rosenbroijer (1998) focuses on the *capability connector functions* provided by the focal firm and their most important counterparts. Andersen (2002) discusses a firm’s mediating function by using the notion of *knowledge processors* and arguing that inter-firm interaction plays a crucial role in learning processes.

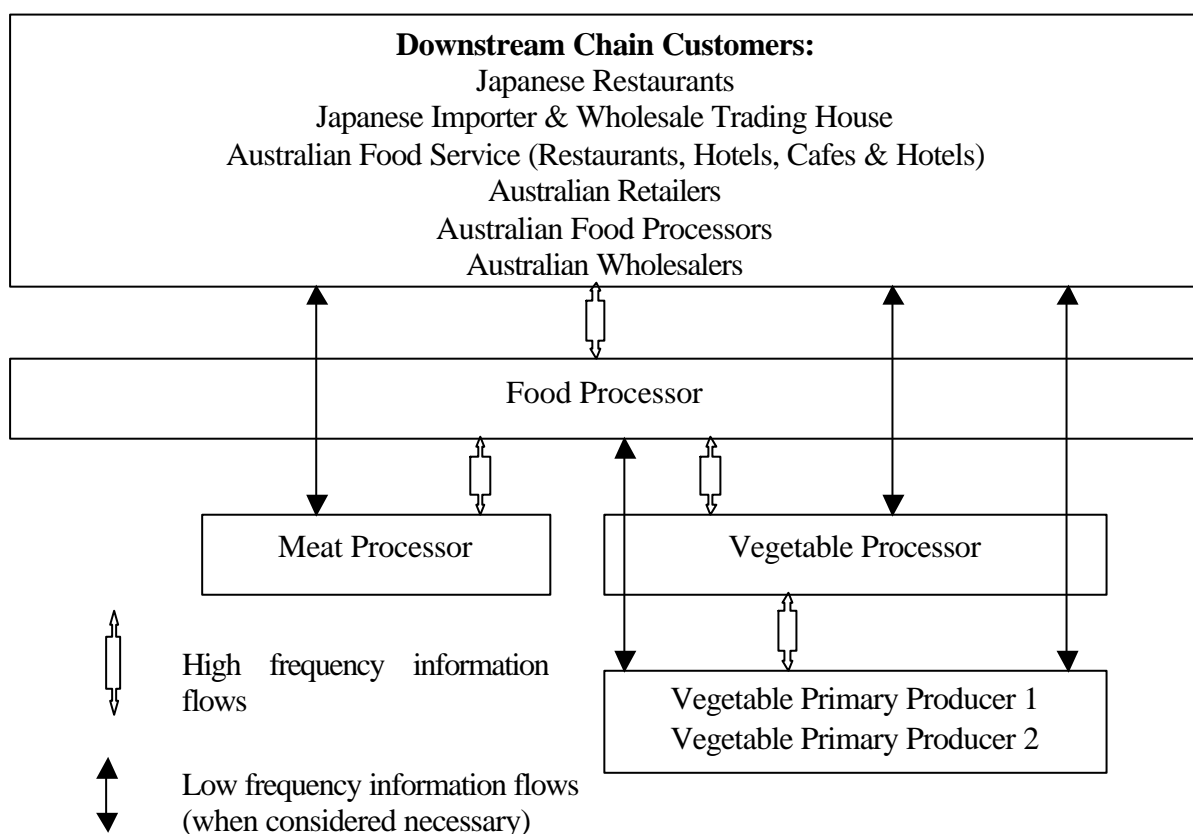
If firms in a chain or network take on a coordinating function as suggested by Holmen and Pedersen (2001), it may not be necessary for upstream organisations to be able to identify all customers and consumer downstream. This would especially be the case if the intermediary organisation performs a mediating connector function. Therefore what may be more of interest is the ability of organisations to understand detailed specifications and requirements of customers as a derivation of final consumer demands. The ability to understand customer requirements would seem to be important as it signifies that the worker has interpreted the needs of the customer into what is meaningful for their own area of work. Understanding customer requirements may be more important than being able to name them, especially if they are many stages removed in the chain or the customer has a particularly difficult name to remember. Another way of measuring if this process has been effective would be to identify customer satisfaction with performance and the extent of ongoing problems in meeting expectations. This operational definition of customer orientation would be in line with Kohli et al.’s (1993) definition to include organisational wide responsiveness to the

intelligence. In using these concepts as a proxy for customer orientation, it was proposed that organisations with a greater customer orientation would have a detailed knowledge of customer product and service requirements, satisfied customers and few significant ongoing problems.

METHODOLOGY

The chains studied consisted of a food processor and four of their suppliers - two vegetable producers, a vegetable processor and a meat processor (Figure 3) in a network of chains or ‘netchain’.

Figure 3. NetChain Case Study Participant Linkages



As suggested by Anderson et al. (1994), suppliers to participate in the study were chosen by the food processor as being significantly important in terms of strategic positioning, volume and value. The food processor identified a strong relationship with the vegetable processor with information flows that had improved over time. By

contrast, there were perceived problems with the information flows between the meat processor and the food processor.

Data was collected using thirty personal in-depth interviews and three interactive workshops. As suggested by Anderson et al. (1994), a multiple informant approach was used with key people from each function as well as at different hierarchical levels (operations, management and executive) in each organisation in the chain interviewed. They were asked to identify the major customers of their products as well as who the final end consumers were. They were asked what each customer/consumer group was looking for, as well as if they thought their products and services met their expectations and if they were aware of any problems customers had with their products.

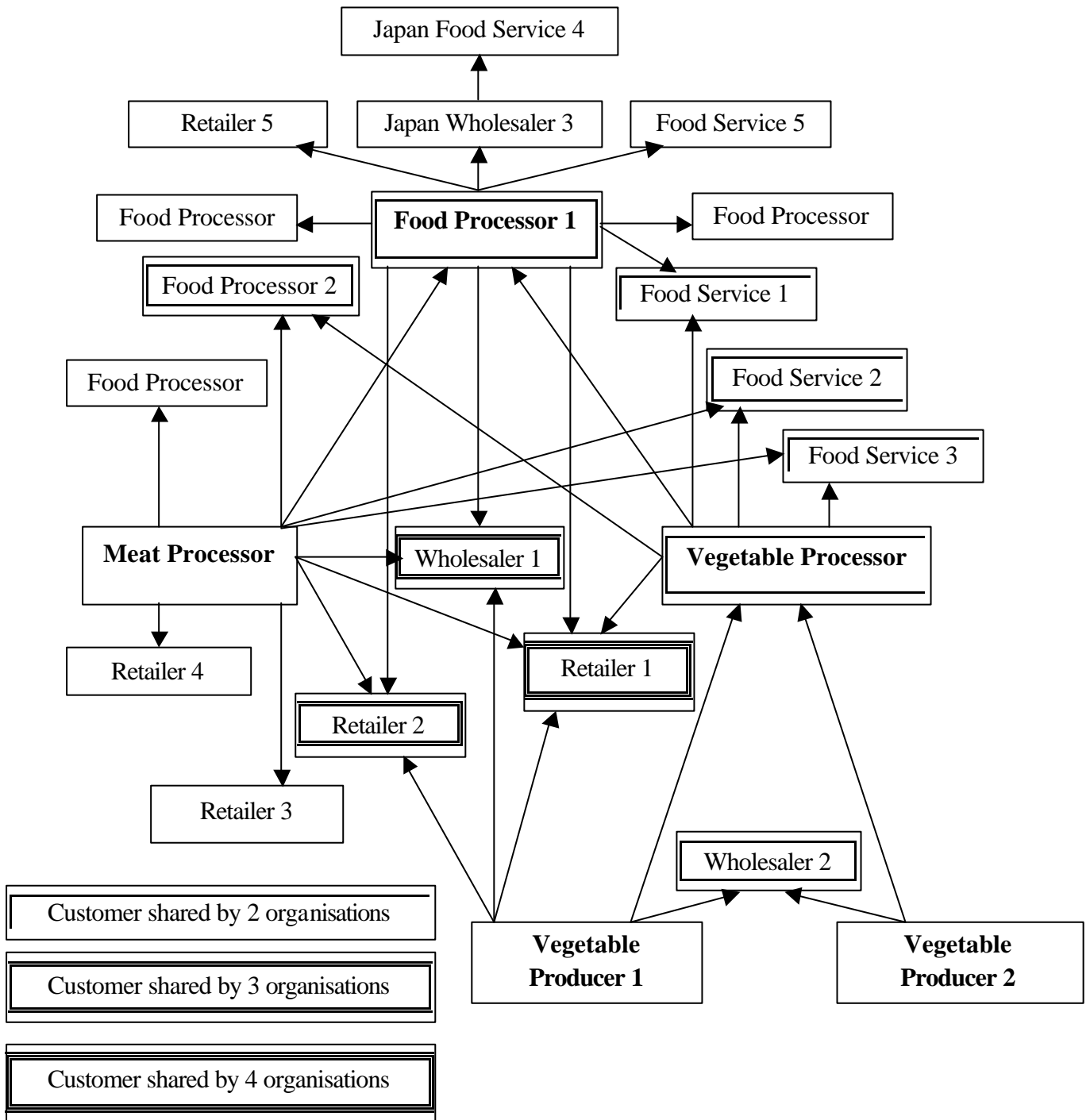
The interview transcripts were transcribed and then collated using Nudist 4.0 software into broad themes and categories. Chain maps were drawn of the customer horizon of each of the firms. The interview data was augmented by interactive workshops run for the organisations where all participants were invited to contribute. The workshop allowed for perceptual agreement (Kumar, Stern and Anderson 1993) and further detail to be added. In addition, it facilitated action to resolve problems identified in the in-depth interviews by prioritising and categorising problems, translating problems into needs, prioritising needs and developing an action plan for the highest priority needs. Implementation, monitoring and review of the action plans for organisations were the responsibility of individual CEO's.

RESULTS

Figure 4 shows the major customers for the network of chains with the arrows depicting the flow of products (organisations studied depicted in bold).

While it was expected that the organisations would have the food and vegetable processors as customers in common, they also had a number of other customers in common including three food service customers (1, 2 and 3), another food processor (2), two wholesalers (1 and 2) and two retailers (1 and 2). The question arises of what was the network horizon of each firm - how many of these relationship was each organisation aware of?

Figure 4. Major Customer Network



In describing the results, firstly the responses of the two vegetable producers will be discussed, followed by those of the vegetable processor, meat processor and food processor. A summary of the general outcomes and a discussion will follow in the next section.

Vegetable Producer 1 Customer Horizon

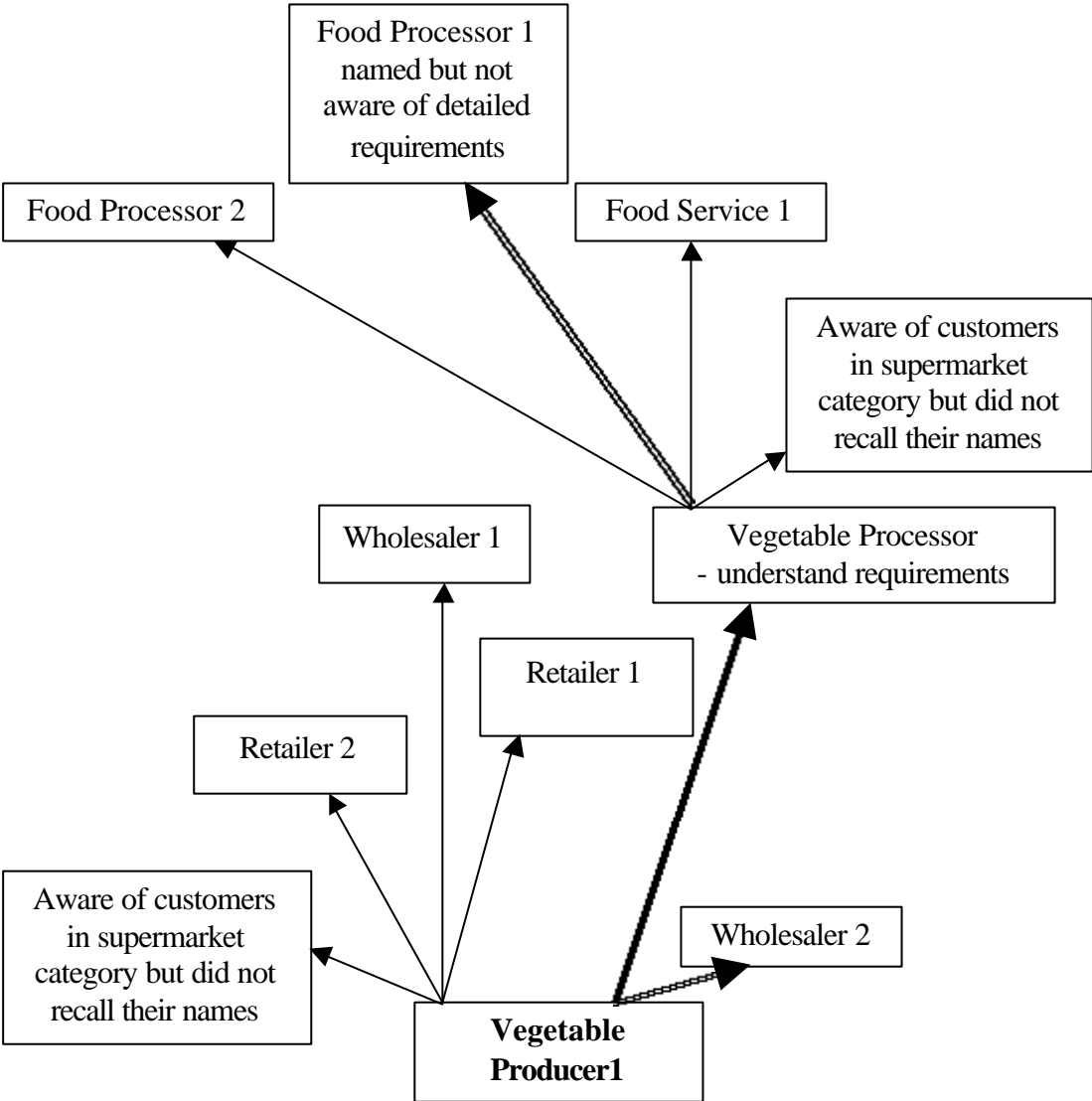
All vegetable producer 1 interviewees were able to recall the name of one major wholesale customer and the vegetable processor (Figure 5). Most were able to recall the names of two major retail customers and another wholesaler, although some were aware of major customers in the supermarket category but could not recall their names unprompted. The quality specifications of the vegetable processor relevant to the interviewee's job were generally well known; for example, in terms of product development stage, size, weight, packaging, price, freshness, free of foreign objects, quality reliability and delivery reliability. Both vegetable producer 1 and vegetable processor interviewees had similar perceptions that the vegetable processor was satisfied vegetable producer 1 was meeting expectations. They were both able to recall the few past problems and how they had been resolved.


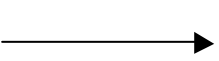

While all interviewees were able to recall the name of the food processor as a major downstream customer (two stages downstream in the chain), they were not aware of what the food processor was looking for, nor who any further downstream customers and consumers were. Some were aware of another food processor and food service customer and that there were downstream customers in the supermarket category.

In conclusion, as a qualitative assessment, the vegetable producer 1's understanding of direct customers was good with most being able to identify all five major customers. However, the vegetable producer 1's customer horizon was short as it did not extend far past the first stage of downstream customers (1-2 stages). The customers named in 3 of 9 chains were close to the final end consumer. Therefore the customer horizon could be described as being wide and half the way to the final end consumer in many chains. The customer orientation was good in terms of understanding of direct customer requirements, meeting customer expectations and having few problems.

One explanation for this type of customer horizon may be due to the fact they produced a highly perishable vegetable with the majority sold through only one stage before reaching the end consumer. While the vegetable products were seen as highly important to the vegetable and food processor, it was only a small percentage of the vegetable producer's business. Therefore, many boundary spanning staff were not aware of the details of the Japan chain, even though the Japanese food service people had visited them.

Figure 5. Vegetable Producer 1's Awareness of Major Chain Customers



- 
All aware unprompted
- 
Most aware unprompted
- 
Some aware unprompted

Vegetable Producer 2 Customer Horizon

All vegetable producer 2 interviewees were able to recall the names of both major vegetable processor and wholesale customers (Figure 6). The reason for only having two major customers for this vegetable was that they produce a diversified range of primary produce with other customers for other produce. The quality specifications of the vegetable processor were very well known in terms of size, texture, smell, flavour, yield, supply consistency and quality consistency. Both vegetable producer 2 and vegetable processor interviewees had similar perceptions that vegetable producer 2 was meeting the vegetable processor's expectations. Both were able to recall the past problems and how they were being resolved.

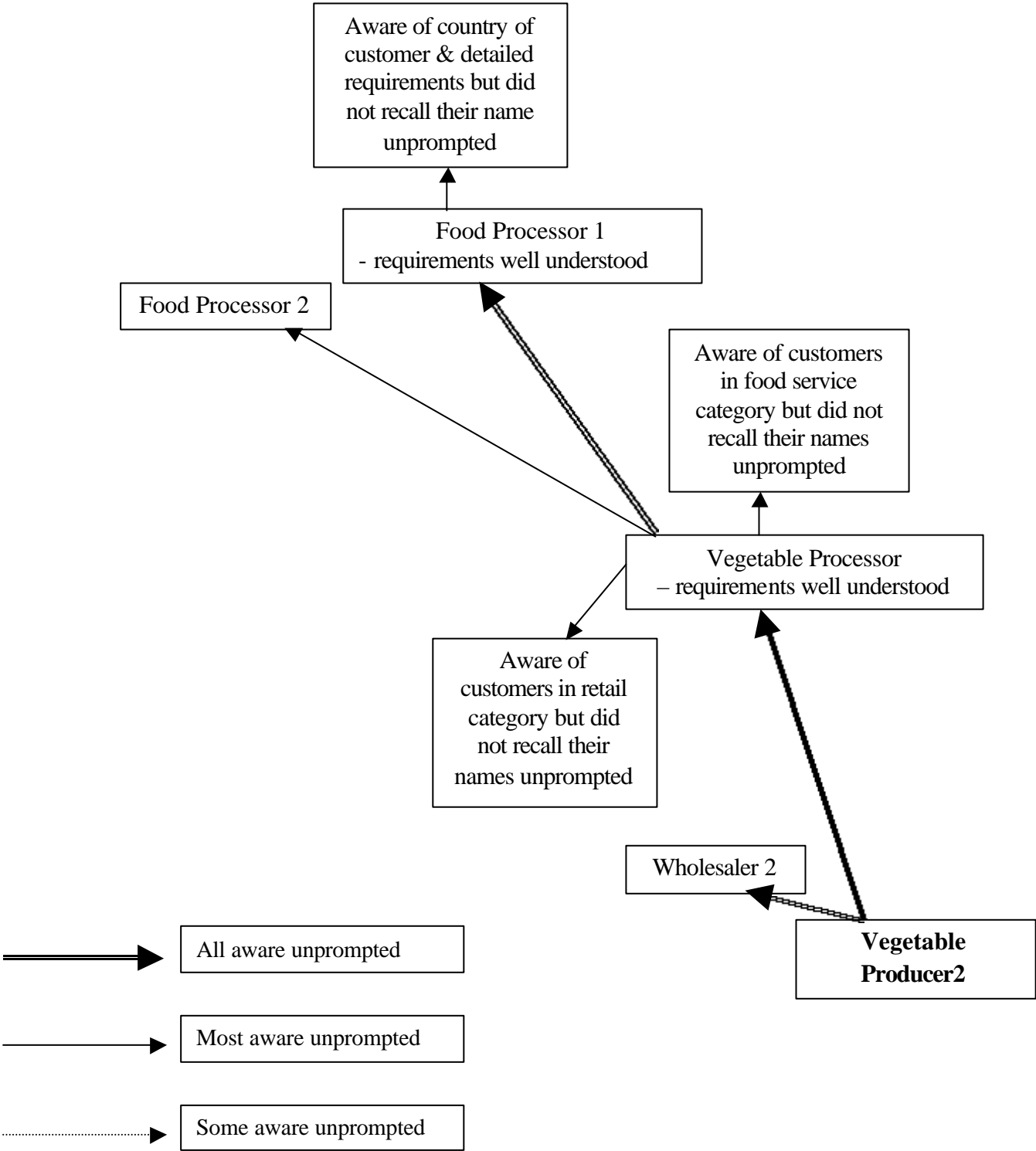
All interviewees were able to name food processor 1 as a major downstream customer (two stages downstream in the chain) and were able describe their requirements in detail (supply consistency and quality consistency). Some were aware of the name of food processor 2 and categories of other major downstream customers. While all were able to describe the requirements of the major downstream Japanese food service customer 4 in great detail (four stages downstream) they did not recall their name unprompted. The quality specifications of the Japanese food service customer were very well known in terms of texture, smell, flavour and quality consistency. They did not know specifically who the end consumers were or what their requirements were.

In conclusion, the vegetable producer 2's understanding of direct customers and the downstream food processor 1 and food service 4 customer were very good. While the vegetable producer 2's customer horizon was long and extended to the fourth stage of downstream customers in one chain, it did not extend to the final end consumer.

In addition, the customer horizon for other chains was short and did not extend far past the first stage of downstream customers. Therefore it could be said that the customer horizon was long (4 stages), and most of the way to the final end consumer for one chain. They had a very good customer orientation with detailed knowledge of customer requirements through the Japan chain to the 4th stage, meeting customer expectations and dealing with problems.

An explanation for long customer horizon structure in the Japan chain was they demanded a vegetable specially grown for them that could not be sold to any other customers.

Figure 6. Vegetable Producer 2's Awareness of Major Chain Customers



Therefore there was significant risk in production of this vegetable if problems arose through the chain. The special vegetable was grown to resolve a long run problem with the traditional vegetable variety. Effort in addressing this problem was seen to be worthwhile due to the previous substantially growth in business and future expected opportunities.

Vegetable Processor Customer Horizon

All vegetable processor interviewees were able to recall the names of three major food service, retail and food processor customers (Figure 7).

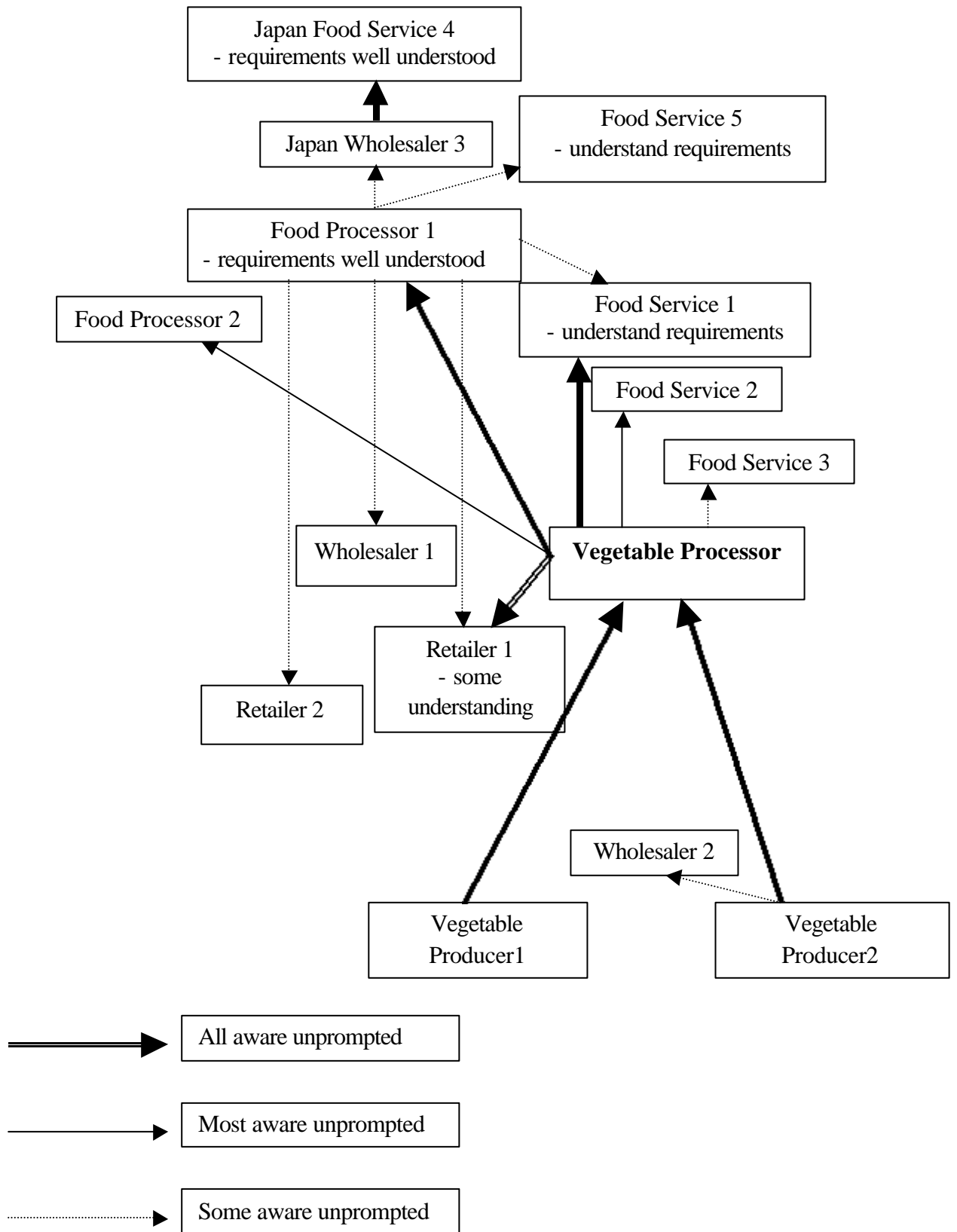
Most were able to name five of the six major customers. All knew the quality specifications and requirements of the food service 1 and food processor 1 customers and some knew the requirements of the retail 1 customer. Customer specific specifications varied in terms of price, quality, flexibility, freshness, precision cuts, reliability, consistency, convenience, range of products and presentation. Both the vegetable processor and food processor interviewees had similar perceptions that the food processor was satisfied the vegetable processor was meeting expectations. They both were able to recall the past problems and how they were being resolved.

All interviewees were able to name Japanese food service 4 as a major downstream customer (three stages downstream in the chain), but not the Japanese wholesale intermediary. Some were aware of the names of five other major downstream customers. They were all able to describe the requirements of Japanese food service customer 4 in detail. The quality specifications of the Japanese food service customer were known in terms of reliability, high quality, clean cuts, no faults or blemishes, no contamination and known raw material source. Some could describe who the final end consumers were and what they were looking for (two and four stages downstream).

Final end consumers were seen to be looking for well presented products that were 100% to specifications of size and quality.

In conclusion, the vegetable processor's understanding of direct customers and the downstream Japanese food service 4 customer were very good. While the vegetable processor's customer horizon extended to the third stage of downstream customers in one chain, it only extended to the final end consumer in this chain for some interviewees. In other chains the customer horizon only extended to the second stage of five downstream customers for some interviewees.

Figure 7. Vegetable Processor's Awareness of Major Chain Customers



Compared to the other organisations studied, some of the vegetable processor interviewees were generally more aware of a wider range of downstream customers and their requirements. The customer horizon was generally wide, reasonably long (3-4 stages of downstream customers) and generally extending most of the way to final end consumers. They had a very good customer orientation with detailed knowledge of customer requirements through the Japan chain to the 4th stage, meeting customer expectations and dealing with problems.

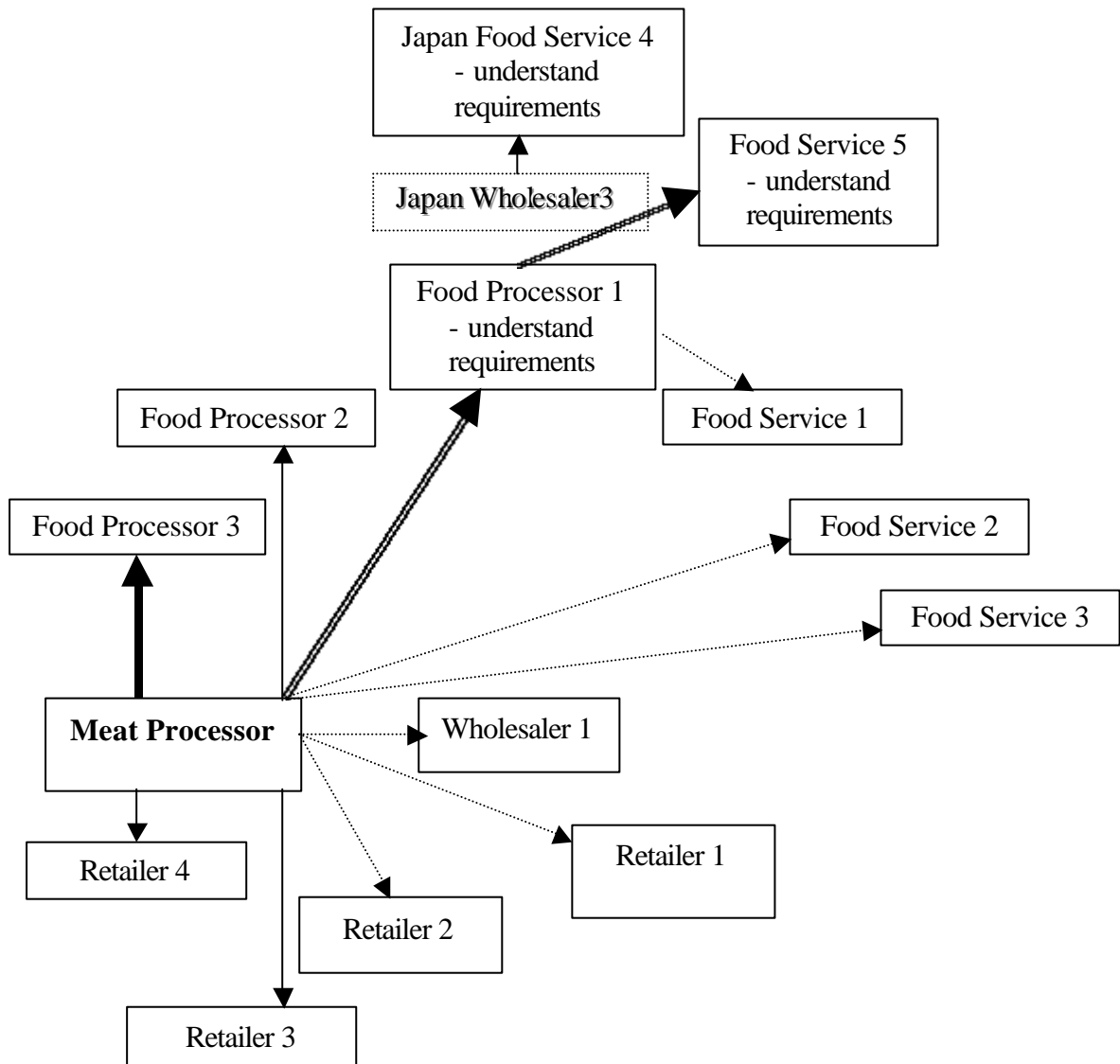
An explanation for the vegetable processor's customer horizon could be the significance of the business in the Japan chain and that they had worked for a long period of time to resolve ongoing demands for improved products. The problem resolution process had involved staff exchanges and visits through the whole chain, as well as substantial ongoing communication and changes to the way the business was run. A long customer horizon and customer orientation was needed to understand the problem and evaluate alternative solutions. The vegetable processor was a small family run business that had grown substantially since it was established based on a philosophy that the customer was always right and they would meet customer requirements wherever possible. Many relationships were based on a social as well as a business basis.

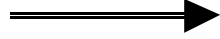
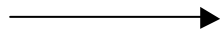
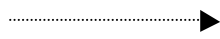
Meat Processor Customer Horizon

All meat processor interviewees could recall the name of two major food processors unprompted (Figure 8) while some recalled the name of another food processor and only some could name the major wholesale, retailer and food service customers. In total most interviewees identified four out of nine major customers.

The requirements of food processor 1 were well known in terms of quality, taste, presentation, price, meat to fat ratio, food safety and hygiene. However there were differences in perceptions of problems and satisfaction between the food processor and meat processor interviewees. The food processor did not always consider their expectations were being met with delays in problem resolution. In addition, compared to other suppliers there was a perceived lack of enthusiasm for new product opportunities, lack of responsiveness to requests and a reluctance to change or admit to problems. The meat processor expected more complaints to be made if the food processor was not satisfied.

Figure 8. Meat Processor's Awareness of Major Chain Customers



-  All aware unprompted
-  Most aware unprompted
-  Some aware unprompted

All interviewees could name downstream food service customer 5 (two stages downstream in the chain) and most downstream Japanese food service customer 4 (three stages downstream in the chain) but not the Japanese wholesale intermediary. The requirements of two downstream food service customers were known in terms of a range of quality, taste, presentation, price, meat to fat ratio, food safety and hygiene. The nature of the end consumer and their requirements were not.

In conclusion the meat processor interviewees understanding of their direct customers were not that good where most identified less than half the major customers. The meat processor's customer horizon extended to the second stage of customers in one chain and for most interviewees to the third stage in another chain. Therefore, it could be said the meat processor's customer horizon was narrow, of medium length (2-3 stages of downstream customers) and extending part the way to the final end consumer. They had less of a customer orientation with differences in expected performance. Most have a detailed knowledge of customer requirements through the chains for 2nd stages.

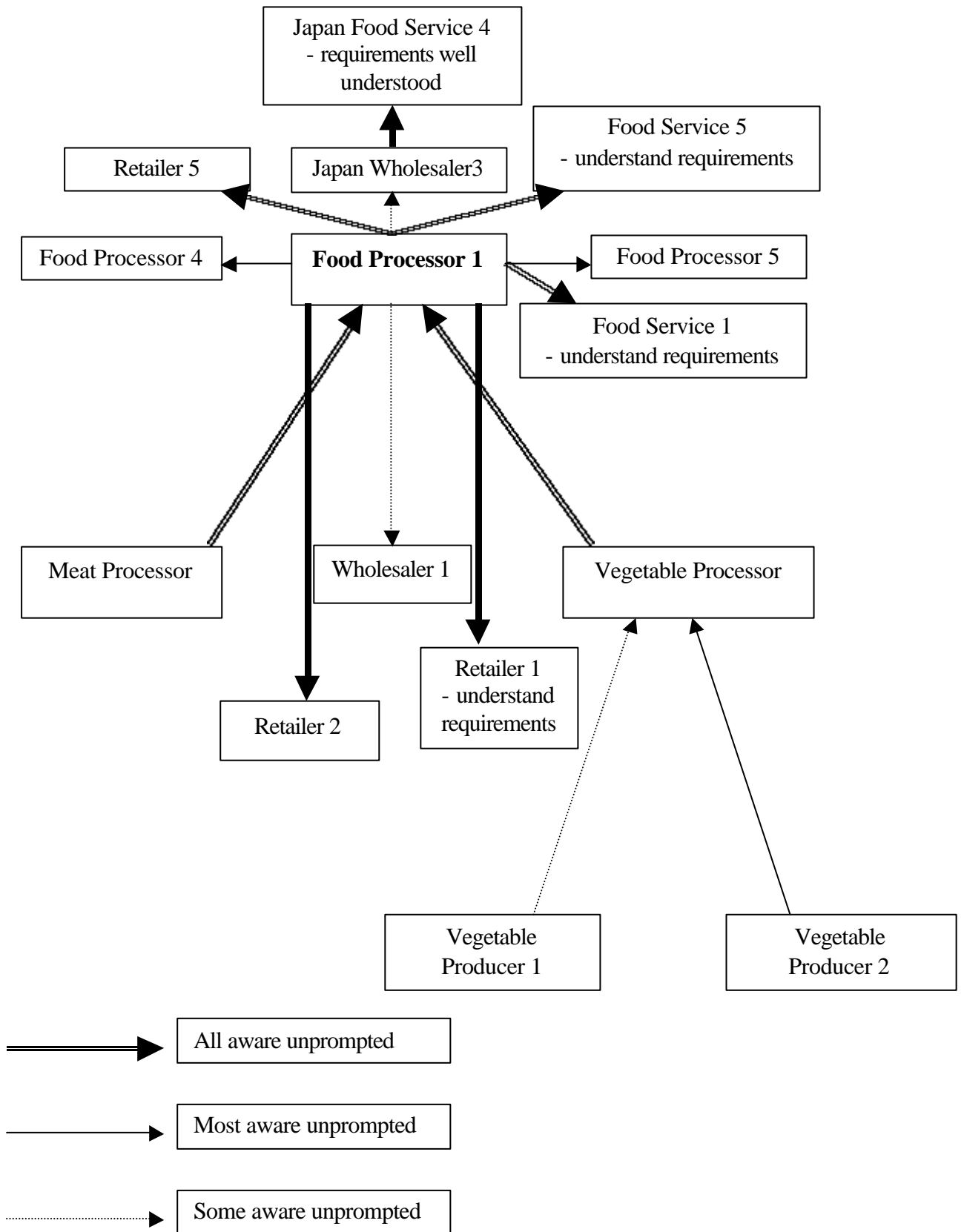
The culture of the meat processor was very different to the other organisations in the case study netchain. They did not pry into downstream customers and expected to be told if they needed to know something. They only made changes if it was clearly demonstrated that it was necessary to do so. Relationships with customers did not extend to social ties.

Food Processor Customer Horizon

While the food processor was larger than the other organisations studied and had more customers, more of the interviewees could recall the names of major customers. All could recall the name of the six major retailers and food service customers and most could recall the name of the two major food processor customers (Figure 9).

Overall, most interviewees named eight of the nine major customers. In addition, customer quality specifications relevant to the interviewee's job were also generally well known in terms of price, value, consistent quality, authentic recipes and ingredients, fresh ingredients, new products, marketing, delivery, consistent supply, attention to fine details and no foreign objects. As customers were not interviewed, an assessment could not be made about how well expectations were being met and problems resolved.

Figure 9. Food Processor's Awareness of Major Chain Customers



Generally there seemed to be a market orientation culture with a focus on meeting customer requirements, especially by personnel dealing with customers. This may be the reason for the substantial growth in business experienced and the prospects for further growth opportunities commented upon.

All interviewees could name downstream Japanese food service customer 4 (two stages downstream in the chain), but few recalled the Japanese wholesale intermediary. The food service customer's requirements were known in great detail in terms of price, value, consistent quality, authentic recipes and ingredients, fresh ingredients, delivery, consistent supply and attention to fine details. The final end consumers were generally known to be Japanese married women and families with children who were fussy about quality. Final end consumers of other chains were described better, possibly because they were located in Australia where interviewee's were more likely to have had personal experience.

In conclusion, the food processor interviewee's understanding of their major direct customers was very good even though there were more of them. Therefore, it could be said the food processor had a broad customer horizon. The customer horizon was medium (1-4 stages of downstream customers), but extended all the way to the final end consumer. They had a very detailed knowledge of customer requirements through to the final end consumer.

DISCUSSION

As might be expected, it was found that those organisations downstream and closer to consumers had a greater understanding of what consumers were looking for. However, downstream customers did not consistently have broader customer horizons that extended through to the end consumer in this case study of five organisations.

Customer Horizon Breadth

Each organisation had two to nine direct major customers. The breadth of the customer horizons varied in terms of interviewees' ability to recall names of major customers and their requirements. Compared to the other organisations studied, the meat processor had the narrowest customer horizon with most interviewees only able to identify four of the nine major customers (Table 1).

Table 1. Customer Horizon Breadth

Organisation:	Customer Horizon Breadth:
Vegetable producer 1	Wide - Most identified five of five major customers
Vegetable producer 2	Medium – All identified two of two major vege customers
Vegetable processor	Wide - Most identified five of six major customers
Meat processor	Narrow – Most identified four of nine major customers
Food processor	Wide - Most identified eight of nine major customers.

Organisations closer to the final end consumers did not have the widest customer horizon as expected. All organisations except Vegetable Producer 2 sold goods to retailers and food service outlets only one stage removed from the final end consumer. In looking at why the meat processor had a narrow customer horizon, organisational culture may provide an explanation. Most interviewees in four of the five organisations were aware of the importance of understanding customer requirements and had a focus of understanding all major customer requirements and meeting them wherever possible. By comparison, the meat processor did not have such a culture, but rather a greater focus on production efficiency.

The findings about breadth of customer horizons can be compared to research conducted by Holmen and Pedersen (2001) of a single organisation case study. They found that all 16 interviewees could name the most important customer and most (13 of 16) could name four of the most important customers. Some (5 of 16) could name the five most important customers. Generally, the electronics manufacturer had a medium width customer horizon.

Customer Horizon Length

The length of the customer horizon varied in terms of how many stages of customers could be identified downstream in the chain and how well the customer requirements were understood (Table 2).

Those further upstream and more distant from the consumer had longer customer horizons, although not for all chains they participated in. Only the food processor interviewees could recall details of who the end consumers were and what each consumer segment was looking for. Two of the organisations had customer horizons that extended most of the way to the final end consumer. Once again, they were not those who were the closest to final end consumer. Vegetable producer 2 was at least two stages removed from the final end consumer in all chains they operated in.

Table 2. Customer Horizon Length

Organisation:	Customer Horizon Length:
Vegetable producer 1	Short - Did not extend far past first stage Half way to the final end consumer
Vegetable producer 2	Long - Four stages in one chain otherwise not far past first stage downstream (short) Most of the way to the final end consumer
Vegetable processor	Reasonably long - Three to four stages downstream Most of the way to the final end consumer
Meat processor	Medium - Two to three stages downstream Part of the way to the final end consumer
Food processor	Medium - One to four stages downstream. All the way to the final end consumer

One thing that the long customer horizon organisations had in common was that they had been subject to significant problems in the past that had required considerable through chain understanding and work to resolve. Therefore, it could be hypothesised that upstream suppliers were only aware of downstream customers several stages away if they had a good reason to do so such as ongoing discussions to meet major quality specifications through the chain.

The only direct comparisons that can be made between this study and other studies is a case study of an industrial electronic manufacturer by Holmen and Pedersen (2001). Few of the 16 interviewees identified three customers one stage downstream. While, customers further downstream were not investigated, this finding suggests a short customer horizon length. The reasons for this are not known.

Customer Specifications, Satisfaction & Problem Resolution

Customer orientation in terms of being able to provide details of customer requirements, being able to meet customer expectations (satisfaction) and resolve problems on a timely basis varied (Table 3).

All respondents could provide details of direct customer (1 stage) quality specifications that were relevant to their area of work. Most could also provide details of specifications for customers 2, 3 and 4 stages downstream. While the meat processor met most customer expectations, there was some dissatisfaction raised by customer interviewees with a perceived reluctance to acknowledge problems and a resistance to change compared to other suppliers. It would seem that once again the meat processor was culturally different from the other organisations.

Table 3. Customer Specifications, Satisfaction & Problem Resolution

Organisation:	Customer Specifications, Satisfaction & Problem Resolution:
Vegetable producer 1	Understand direct customer requirements – 1 stage Meet customer expectations Timely problem resolution
Vegetable producer 2	Understand customer requirements - 4 stages Meet customer expectations Timely problem resolution
Vegetable processor	Understand customer requirements – 3 stages Meet customer expectations Timely problem resolution
Meat processor	Understand customer requirements – 3 stages Meet most customer expectations Reluctance to change & acknowledge problems
Food processor	Understand customer requirements – 2 stages

The fact that most of these organisations were unaware of some downstream customers and consumers while still understanding downstream customer requirements may be explained by Anderson et al.'s (1994) suggestion that network relationships and connections are basically invisible and can extend a long way away. Using Holmen and Pedersen's (2001) line of argument, it could be suggested that the customers perform coordinating roles. In some cases, it may be direct connections through the chain such as when a problem has to be resolved by all parties discussing it. In other instances, it may be more of a mediating co-ordination role without the supplier being aware of it such as when consumer and customer requirements are relayed back up the chain in the form of product and service specifications. This may be especially appropriate when suppliers are not very interested in a detailed understanding of customers several stages removed.

Differences between Respondents in Organisations

While the results have been discussed at an aggregate organisational level, there were differences noted at an individual level between respondents in each organisation. The most noticeable difference was individual's customer knowledge and understanding. Those with greater "boundary spanning" roles having greater exposure to customers had a better understanding of their requirements and those of further downstream customers.

Those in more managerial roles and with greater experience tended to be more aware of the other actors in the chain.

There were also variations in the attitudes of individuals from different departments with the most noticeable difference between those in purchasing departments compared to those in marketing departments. Interviewees in purchasing departments were more focused on supply cost minimisation and efficiencies and less on understanding customer requirements. Interviewees in marketing and quality assurance departments were more focused on understanding and meeting customer requirements effectively.

One of the implications of these differences at the individual level is the importance of getting multiple informants to give a balanced picture of the organisation. Another implication is to ensure that knowledgeable informants are interviewed who have sufficient experience and who preferably are at a managerial level.

CONCLUSIONS

It was originally proposed that downstream customers would have broader customer horizons and customer horizons that extended through to the end consumer. It was also suggested that organisations with a greater customer orientation would have a detailed knowledge of customer product and service requirements, satisfied customers and few significant ongoing problems. The fact that the meat processor was not meeting all customer expectations indicates that they did not fully understand all their customer's requirements. This was in line with their narrower and shorter customer horizon that did not extend as closely to the final end consumer compared to the other organisations studied. These differences may be explained by a difference in culture with a focus on production efficiencies rather than effectiveness in meeting customer requirements. Another explanation is that greater customer orientation has resulted from the ongoing problem resolution process for vegetable producer 2, the vegetable processor and the food processor. As a result, those organisations close to the final end consumer did not always have a greater customer orientation with wide customer horizons that extended to the final end consumer as originally proposed.

Based on these results, it is now proposed that a greater customer orientation is more likely for organisations close the final end consumer or for those who have had a major problem that has required downstream customer understanding to be resolved. In

addition, where there has not been a significant event to act as a catalyst to focus on customer requirements, the focus may remain on traditional production efficiencies. A greater customer orientation is defined as a wider customer horizon and knowledge of downstream customers most of the way through to the end consumer or an understanding of their requirements.

Future studies of horizons and market/customer orientations, as well as looking at respondents being able to name counterparts or their category, it may be more important to determine if they understand how it impacts on their organisation and what they do. Where possible assessment should also be made of how effective this has been by getting counterparts to assess how satisfied they are in getting their expectations met and if problems are resolved on a timely basis. From these range of measures, a more complete picture should be able to be determined.

One implication for managers is that while employees may be unable to name significant counterparts, do not despair. Employees may still be aware of their impact and be responding appropriately in their job. If the employee does not have a lot to do with the counterpart on a day-to-day basis, it may be more difficult for them to remember their name. If employees cannot name them, probe for awareness of the existence of counterparts in the category, employees understanding of them and how it relates to their job. Use of categories can be especially useful where there are many counterparts in one area or if they have very difficult to pronounce or remember names.

Limitations

In terms of methodology, one limitation was the focus on the netchain participants in exploring downstream customer horizons. The participating organisations customer horizons for all major customers was not explored in great detail past direct customers except for the chains that had agreed to be studied in the beginning. It may have been fruitful to explore the customer horizons of other better known chains in greater detail such as the:

- wholesale 2 chain for both the vegetable producers;
- food processor 3 chain for the meat processor; and
- retail 2 & 5 chains for the food processor.

Another main limitation was not being able to compare the findings to research other than that by Holmen and Pedersen (2001) for some aspects. Blankenburg (1992) asked

respondents to identify categories of related parties rather than naming customers specifically, something that you may expect to be more difficult to do. Salmi, Havila and Anderson (2001) examined network horizons for acquisitions (suppliers) not customers.

Future Research

Further research needs to be done on more organisations to determine if the findings can be replicated and generalised. These findings were based on a case study of only five organisations in a food industry netchain and each may have significant differences.

The relationship between customer horizon breadth and length needs to be examined further to test the propositions raised to explain the findings. What is the effect of the organisations position upstream in the chain from the consumer? Do organisations further from consumers tend to have longer customer horizons? Do organisations only have longer customer horizons in response to resolving major problems where this was needed? If major problems resulted in major conflict rather than a win-win solution what would be the result? Can the differences in the breadth of customer horizons be explained by a culture of having a customer orientation where it is perceived to be important to know customers and their requirements?

There may be differences in customer horizons between different industry sectors. Do the same results hold in chains of highly perishable fruit and vegetables where there is a risk of product wastage if the chain does not operate effectively? Would there be any differences if the number of stages to the final end consumer from the producer were more or less? In wool chains, it can take two years to get the raw wool from the producer to a garment worn by a consumer. How would the time taken to move product through a chain affect customer horizons? Is it harder for people to understand the needs of final end consumers in a remote country in which they have little experience?

It would also be of interest to carry out research into (a) what characterises a focal firm's counterparts, which primarily perform the joining, relating or mediating function, respectively, and (b) what characterises the focal firm's respective relationships to these counterparts. Furthermore, it would be interesting to investigate if, and the extent to which, a focal firm's network horizon is related to the firm's strategy towards its counterparts' and these counterparts' strategies towards the focal firm.

REFERENCES

- Anderson, J. C., Håkansson, H. & Johanson, J. 1994, 'Dyadic Business Relationships within a Business Network Context', *Journal of Marketing*, vol. 58, no. 4, pp. 1-15.
- Andersen, P. H. 2002, Division of Inter-firm Activities in the Knowledge-based Economy: The Crucial Role of Knowledge Processors, *Journal of Business-to-Business Marketing* (forthcoming), 2002.
- Axelsson, B. and Easton, G. eds. 1992, *Industrial Networks: A New View of Reality*. Routledge, London.
- Bensaou, M. 1999, 'Portfolios of Buyer-Supplier Relationships', *Sloan Management Review*, vol. 40, no. 4 Summer, pp. 35-.
- Blankenburg, D. 1992, *Kopplade Relationer i Industriella Nätverk*, Licentiate thesis, Uppsala University.
- Cook, K. S. & Emerson, R. M. 1978, "Power, Equity and Commitment in Exchange Networks", *American Sociological Review*, Vol. 43, pp 721-739.
- Day, G. S. & Wensley, R. 1988, 'Assessing Advantage: A Framework for Diagnosing Competitive Superiority', *Journal of Marketing*, vol. 52, no. April, pp. 1-20.
- Easton, G. 1992, Industrial Networks: a Review, in *Industrial Networks: A New View of Reality*, Björn Axelsson & Geoff Easton, eds. Routledge, London, pp3-27.
- Havila, V. 1996, *International Business-Relationship Triads - A Study of the Changing Role of the Intermediating Actor*, PhD thesis. Uppsala University, Department of Business Studies, Uppsala.
- Håkansson, H. & Snehota, I. 1989, No Business is an Island: The Network Concept of Business Strategy, *Scandinavian Journal of Management*, Vol. 5, Iss. 3, pp187-200.
- Håkansson, H. & Snehota, I., (eds). 1995, *Developing Relationships in Business Networks*. Routledge, London.
- Hines, P. 1998, 'Supply Chain Management: From Lorries to Macro-Economic Determiner', in *Proceedings of the Logistics Research Network Conference 1998*, Institute of Logistics, Cranfield University, United Kingdom, pp. 1-23.
- Holmen, E. & Pedersen, A.-C. 2001, 'Knowledge and Ignorance of Connections Between Relationships', in *17th Annual IMP (Industrial Marketing & Purchasing) Conference*, 9-11 September, Oslo, Norway.

- Hughes, D. 1994, *Breaking with Traditions: Building Partnerships and Alliances in the European Food Industry*, Wye College Press, Wye, Kent, United Kingdom.
- Jaworski, B. J. & Kohli, A. K. 1993, 'Market orientation: Antecedents and Consequences', *Journal of Marketing*, vol. 57, no. 3, pp. 53-70.
- Kohli, A. K. & Jaworski, B. J. 1990, 'Market Orientation: The Construct, Research Propositions, and Managerial Implications', *Journal of Marketing*, vol. 54, no. 2 April, pp. 1-18.
- Kohli, A. K., Jaworski, B. J. & Kumar, A. 1993, 'MARKOR: A measure of market orientation', *Journal of Marketing Research*, vol. 30, no. 4, pp. 467-477.
- Kumar, N., Stern, L. W. & Anderson, J. C. 1993, 'Conducting Interorganizational Research Using Key Informants', *Academy of Management Journal*, vol. 36, no. 6, pp. 1633-1651.
- Laage-Hellman, J. 1989, *Technological Development in Industrial Networks*, PhD thesis. Uppsala University, Department of Business Studies, Uppsala.
- Lazzarini, S. G., Chaddad, F. R. & Cook, M., L. 2001, 'Integrating Supply Chain and Network Analyses: The Study of Netchains', *Chain and Network Science*, vol. 1, no. 1, pp. 7-22.
- Narver, J. C. & Slater, S. F. 1990, 'The Effect of a Market Orientation on Business Profitability', *Journal of Marketing*, vol. 20, no. 4 October, pp. 20-36.
- Pedersen, A. 1996, *Utvikling av leverandørrelasjoner i industrielle nettverk*, PhD thesis no. 107. Norwegian University of Science and Technology, Department of Industrial Economics and Technology, Trondheim.
- Ritter, T. 2000, A Framework for Analyzing Interconnectedness of Relationships, *Industrial Marketing Management*, Vol. 29, pp317-326.
- Rosenbröijer, C. 1998, *Capability Development in Business Networks*, PhD Thesis. Swedish School of Economics and Business Administration, Helsinki.
- Snehota, I. 1990, *Notes on a Theory of Business Enterprise*, PhD thesis. Uppsala University, Department of Business Studies, Uppsala.
- Salmi, A., Havila, V. & Anderson, H. 2001, 'Acquisitions and Network Horizons', *Nordic Organization Studies*, vol. 3, no. 4, pp. 59-81.
- Trienekens, J. 1999, *Management of Processes in Chains: A Research Framework*, CIP-Data Koninklijke Bibliotheek, Den Haag, The Netherlands.

Wren, B. M., Souder, W. E. & Berkowitz, D. 2000, 'Market Orientation and New Product Development in Global Industrial Firms', *Industrial Marketing Management*, vol. 29, no. 6 November, pp. 601-611.