Marketing potential and barriers for fresh packed fish

A survey of buyer perception in UK and French seafood distribution

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Abstract

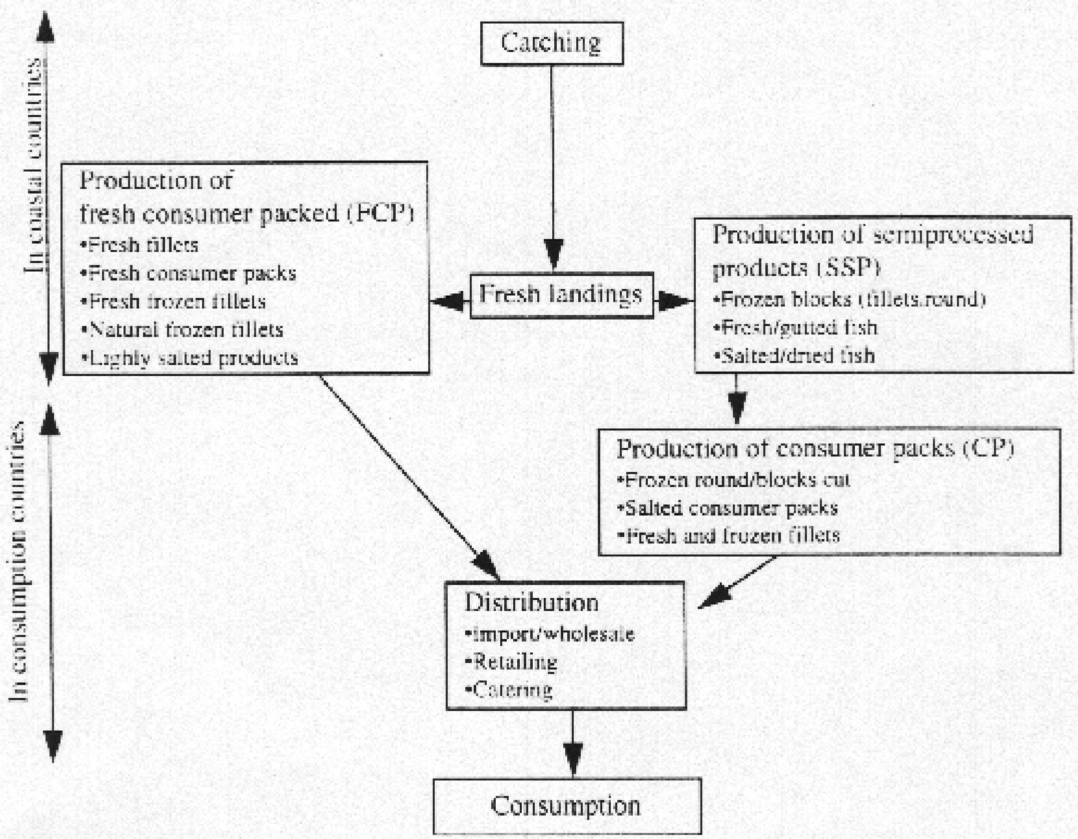
The main research question in this paper is: What impacts do the perceived structural changes in (1) consumer demand for fresh quality and (2) mobility (trade) barriers in distribution have on the market and trade patterns for fresh packed consumer fish products? A representative sample of UK and French seafood supermarket buyers, importers and wholesale distributors were interviewed about their perceptions of the answers to these questions and the data collected were subjected to statistical analysis. The results show that processors with access to fresh fish landings have a strong incentive to maintain the «freshness» properly as the fish move through the market channel. Indeed, the fact that they have access to fresh fish in the first place gives such processors a competitive advantage in the high quality end of the market. The results show further that market potential is perceived to be better for fresh packed fish than for traditional frozen products. The potential is higher in France than in the UK. The potential for both fresh and fresh frozen consumer packs is perceived to be strong. The potential for consumer products from frozen blocks (portion cut) is still perceived to be good in the UK, but not in France. Several barriers to increased sales of fresh packed consumer products were identified. Not surprisingly, price, and therefore consumer demand, was ranked as the primary barrier in the market. Other important factors are switching cost (i.e. costs of changing to a different supplier), uncertain quality, unsteady supply, a reluctance of suppliers to invest in sales promotion and, finally, weak personal relationships. Barriers in the raw fish market, that is, constraints at the harvest level, and lack of knowledge about the qualifications of alternative processors are also perceived to be important. These entry barriers have to be overcome by new suppliers before entry is possible.

Keywords: Marketing, UK, France, seafood, fresh quality, consumer packs, strategies.

Introduction

Rising consumer demand for fresh quality products, together with competition among the supermarket chains and between the supermarkets' own labels and processor brands have combined to emphasis "freshness" of seafood as an important strategy in the market for fish. Treating freshness as an indicator of quality may lead to increase market power in the hands of those who, by virtue of their position in the market channel, determine the maximum freshness level. These individuals are, of course, the fishermen and the processors to whom the fishermen deliver raw fish. Holding such market power provides opportunity for value added processing in the coastal regions.

Figure 1. Main value chains for Norwegian Fish products from catch to consumption.



In terms of Figure 1, this would shift products from the right-hand to the left-hand product chain: i.e., from the distribution network associated with semi-processed products to the network for fresh packed consumer products.

Despite this argument, it is difficult to find evidence that the stronger demand for higher quality seafood has led to increase production of fresh quality consumer products in the coastal countries that control the supply of raw fish. The explanation does not appear to lie in export constraints. On January 1 1994, Norway entered an agreement between the EFTA countries and the European Union (European Economic Area - EEA), according to which all import duties on fresh, frozen and sailed cod fillets were removed. Despite this, the Norwegian export statistics do not show any significant increase in the export of these products. Norway's main exports have remained the same for many years: intermediate semi-processed products (SPP) such as iced headed and gutted (round) fresh fish, frozen fillet blocks and salted/dried fish, all of which are further processed in the consuming countries, before reaching the final consumer [l].

It is Norway’s apparent failure to take advantage of both the increased demand for fresh products and the reduction in import barriers that motivated the Study described in this paper. The main research question, then, is: has the market potential for fresh-packed consumer products made by primary fish processors been influenced by the structural changes in consumer demand and trade barriers? If the answer is «no», what is the explanation? If the answer is «yes», why has this not resulted in changes in the marketing mix of Norway's fish products?

The concept of fresh consumer packed (FCP) refers here to all consumer packed products using fresh fish as raw material. The products can be distributed as chilled, frozen or salted products directly to supermarkets or restaurants without any further processing. These are different from semi-processed products which have to be further processed in factories or in homes in order to be ready-to-cook. An example of a shift from the semi-processed to the FCP form would be a move from the traditional Portuguese and Spanish consumption behavior where housewives buy a whole clip fish which has to be processed over several days, to the purchase of a ready-to-cook diluted product for direct consumption [2],[3].

Given this willingness of consumers to shift, why do Norwegian suppliers not take greater advantage of the perceived increased demand for fresh quality products and reduced import barriers into the EU and offer more further processed products? We anticipate that Norwegian processors and exporters are like other businessmen, who seek strategies that give the best relatively perceived opportunities at a reasonable risk [4]. This suggests that there are other constraints in this market which prevent the processors from increasing their market power through increased production of fresh quality fish. From a value chain perspective, it is hypothesized that there are barriers in at least four possible areas which can explain this behavior:

1. Constraints in the consumer's level of awareness of and willingness in pay for fresh quality in consumer products.

2. Constraints in seafood buyers' perception of the potential for fresh quality consumer products, whether or not such potential actually exists.

3. Constraints in the supplier companies' (processors') qualifications to enter the distribution chain with fresh consumer packed products.

4. Constraints in the raw fish market for serving the demanded supply to the distributors.

These hypothesis are investigated in this paper.

Analytical perspective

Traditionally, economists analyze these kinds of problems through the structure-conduct (behavior) - performance (SCP) model [5]. We are interested in competitive behavior which may increase long term performance in the fish market. Behavior for long term performance in businesses has its foundation in sustainable competitive advantages (SCA). SCA is based on the relationship between constraints as (1) assets and skills (input factors) of the business and (2) where and the way they choose to compete (output factors) [6]. When the assets**,** skills and strategies vary between companies, so will also the structural attractiveness (obtainable margins) vary among companies in different markets [7], [8]. Strategic groups are formations of companies which are embedded in the same kind of structure and are practicing the same main strategy [9]. In our case, those companies which market FCP products and those that market frozen fillet blocks, form two different strategy groups. This means that, in order for a primary processor to enter the market for value added products from its basis in frozen fish block production, it is necessary to change to a different strategic group and, by this, to new customers, new competitors and sometimes new suppliers. The structure constraints to which the processors have to adapt, include such factors as available fish quotas, landings, suppliers, governmental regulations, the influence of related institutions, technology, buyers and markets[10]. Figure 2 summarizes the relationship between the structure-conduct-performance model and the sustainable-competitive-advantage model in an extended model we name (SSP)P.

Figure 2: A (Structure-Strategy-Power-Performance) Perception (SSP)P model. A structure-conduct-performance model extended with sustainable competitive advantage, market power and buyers perception and strategy.

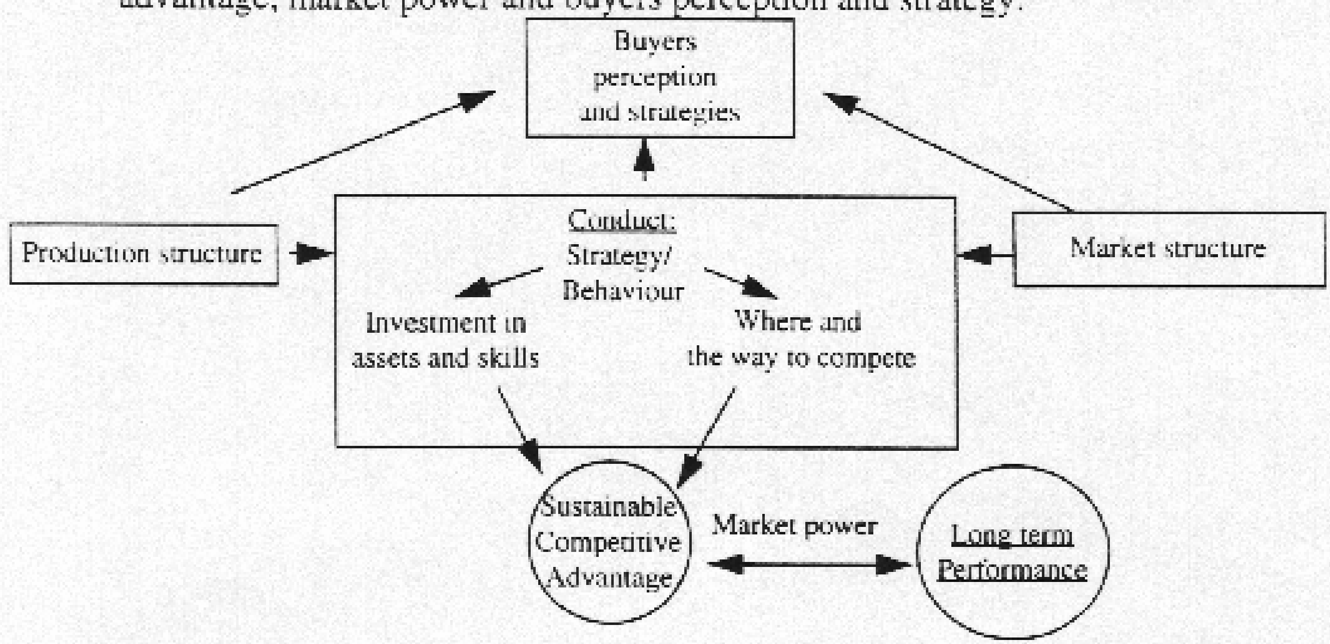


Figure 2 shows that strategic and behavioral conduct are intermediate factors between structure and performance. Strategy and behavior are dependent on business investment in assets and skills and on decisions about where and how to compete.

Perception is, as Rogers [11] has shown, an important market barrier between a) actual strategy/ behavior and b) decisions about investments and where / the way to compete. Changes in structure must be perceived and understood by the business leaders, and transformed into actions in line with business goals. Perceptions are also selective and vary with change in organizational structure, goals and previous experience in different distribution sectors. Based on this model, this analysis focuses on variation in buyers' perceptions of the demand for fresh consumer packed products (FCP) as reflected in their perception of barriers for such growth and based on their positions in the value chain.

Material and methods.

A survey of buyers in British and French supermarkets and importers/wholesalers was carried out in 1994. These two countries were chosen because the UK has Europe's most developed market for FCP, while France is known to have Europe's most quality-conscious seafood buyers. Together these EWO countries account for 1/3 of the population in the EU. Supermarket buyers, wholesalers and distributors were selected for the survey because they were expected to be the most knowledgeable about possibilities and barriers for fresh quality value added fish throughout Europe. These buyers are also the main gatekeepers for those processors who want to enter this market.

The interviews were carried out by two Norwegians educated in fish marketing in the respective national language, by telephone in both the UK and in France. Face to face interviews were also used in France. Buyers for all the main national supermarket chains were interviewed. These chains account for 34% of all UK and 21% of all French supermarket outlets (Table 1). The sample of UK distributors was selected from the list of firms classified and registered in both the 1988 and the 1993 Fish Trade Yearbook as suppliers handling whitefish and involved in distribution. The distributors sampled in France were selected from an assessment made by the Norwegian Export Council's office in Paris about the companies' importance as distributors of fish. All but one French distributor were collected in the Boulogne-Sur-Mer area, which handles 25% of the total seafood sales in France (Table 2). Thus, the set of buyers interviewed was not a random sample but, rather, a sample of persons believed to be knowledgeable about both their own operations and the seafood industry in general.

Table: 1 . Profiles of interviewed-supermarket chains.

Country	Number of supermarket chains	Outlets (variance)	Pct of national Number of outlets	National (>1 region)/regional	Customer group	% of national fresh fish sales
UK	7	1555 (21-467)	34.3%	6 national 1 regional	2 all 4 middle-top 1econ/middle	NA
France	5	2800 (50-2255)	21.4%	5 national	NA	estimated 25% (a)
SUM	12	4355				

(a) Estimated 1993/94 total market ca 200,000 tons, GSM 90.000 tons, Sample 40,000 tons (43.5% of tot GSM) [19]

Table 2: Profiles of interviewed seafood distributors except supermarkets.

Country	N	Average no of employers.(std.dev.)	Position in the value chain	Location	Main markets	Product form
UK	8	736 (697)	6 importers 1 processor/importer 1 other distributor	3 Humberside 2 Surrey 1 Cornwall 1 Brekshire 1 Strathclyde	4 internat. 2 nat. 1 local	2 fresh & frozen 3 frozen 2 fresh
France	15	410(1211)	8 importers 5 processor/importer 2 other distributors	14 Boulogne Sur Mer 1 Paris		
SUM	23	467(I~26)	14 importers 6 processors/importers 3 other distributors			

Seafood buyers for 12 supermarket chains were interviewed, representing approximately 4,400 sales outlets covering all of France and the UK. Also interviewed were representatives of 23 fresh and frozen fish distributorships of different sizes and product focus, with an estimated employment of nearly 10,000. The distributors served local, national and international markets.

It is reasonable to assume that the views expressed by the seafood buying experts in the sample provide representative perceptions of the current possibilities and barriers in the European market. However, it is possible that those willing to be interviewed have a more optimistic view of the potential for new fish products and are more willing to consider dealing with new suppliers than would be the case of the entire population of seafood distributors. Nonetheless, from the perspective of the product life cycle (PLC) model, it is likely that the views expressed by this group will spread and become more representative as the market for fresh products grows.

The interviews were guided by a questionnaire based on literature references and personal experience about factors anticipated to have an impact on buyers' preferences and perception of demand-related problems. Not all the respondents answered all the questions, in part because of perceived lack of relevance to their particular situation and in part because of company policy on confidentiality. Table 3 shows a classification of factors, related to the concepts in Figure 2, which buyers perceived as relevant for long term performance in the market for fresh consumer packed products.

Table 3: Factors which buyers perceived as important for long term performance in the market for fresh consumer packed products.

Production structure	Market structure	Investment in assets and skills:	Where and the way to compete
• Raw fish market	• Potential for products	• Products	• Investment in sale
• Variation in supply	• Price	• Qualified processors	• Personal relations
•Limited supply	• Demand	• Switching costs	• Access to qualified processors
• Unsteady supply	• Low growth		• Price/quality relationship
• Seasonal variations	• Special customers		
• Uncertain quality	• Consumers awareness quality		
• Variation in quality	• Switching		
• High exit	• Import duty • Under-promoted product		

Respondent preferences and perceptions were scored via the five point Likert scale, where a score of 1 was low and of 5 high.

The survey data were coded and analyzed using the Anova Kruskal Wallis non parametric test for differences in average values. Cross tabulations were also calculated, using Pearson's R Correlation tests and ordinary correlation analysis, all via standard SPSS procedures. The results of the analysis are presented in the following sections

Market potential for consumer packed fresh fish.

The first hypothesis examined was that seafood buyers do not perceive a strong future for fresh quality consumer products, especially when compared to other product forms. Table 4 reports the average responses for each of eight product classifications.

Table 4. Respondents' judgement of market potential for different fish products on a 1 to 5 Linkard scale. 1= no good. 2= minor, 3=gowing, 4=good. 5 very good).

Potential	Mean	Std Dev	Min	Max	N=35
Fresh round	1.90	1.10	1	4	10
Natural frozen fillets	2.55	1.13	1	4	11
Frozen portion cut	2.64	1.29	1	4	11
Frozen	2.72	0.89	1	4	18
Fresh consumer pack	3.00	1.04	2	5	14
Fresh frozen	3.00	1.00	2	4	3
Fresh	3.38	0.74	t	4	8
Fresh fillets	3.60	1.07	2	5	10

The term «fresh» in «fresh frozen» means here that the products are made from very fresh fish (1-4 days from catch) compared with “natural frozen” fillets, which in principle could be made 8-10 days after catch. Generally, Table 4 shows that the respondents saw a greater future potential for fresh fish, except fresh round, than for frozen products. Fresh fillets received the highest average score (3.6) while both fresh consumer packs and the overall «fresh» category earned scores of more than 3. Only three respondents were familiar with the term fresh frozen but they gave it the same average score as was recorded for fresh consumer packs. All other frozen product scored on average between 2.55 and 2.72 on the question of future potential.

As a general statement, these findings lead to a rejection of the hypothesis that buyer preferences act as a barrier against the marketing of fresh quality consumer product.

Of additional interest, however, is whether there are differences between the two survey countries and between types of distributor. Table 5 shows the results of an analysis of this question

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Table 5: Differences in respondents judgement of market potential for different fish products. One way Anova test for differences of mean.

Market segments	UK and France		UK All	France All		
	Supermarkets	Other				
Product potential	Mean	Mean	Mean	Mean	p	N=35
Fresh round			1.00	2.50	0.02	10
Fresh fillets			3.00	4.20	0.08	10
Frozen fish			3.09	2.14	0.03	18
Frozen portion cut			3.12	1.30	0.04	11
Fresh consumer pack.	3.80	2.56			0.04	14

The table suggests that UK and French buyers have significantly different perceptions of fresh round, frozen fish (as a category) and frozen fish portion cuts (p=< 0.05) and fresh fillets (p= 0,08). Generally speaking, there is no difference between France and the UK in the high score fresh fish as a category received. However, the results show that fresh products received their highest scores in France and frozen products their highest scores in the UK. While frozen fish as a category and frozen portion cuts (fish sticks etc.) received better scores in the UK than did fresh fillets, the relationship is the opposite in France. It is interesting to note that even fresh round gels a higher score in France than do frozen products. Fresh fillets got the highest score in France. These findings suggest that the barriers to buyers' demand for fresh quality fish are somewhat higher in the UK than in France, even though buyers in both countries give fresh quality products relatively high ratings. Are there any differences between the preferences of supermarkets and other distributors?

Table 5 shows that it was only regarding the potential of fresh consumer packs that the perception scores were significantly different between the two groups of buyers. Respondents from supermarkets perceived consumer packs of fresh fish to have a relatively high potential (average score 3.8), while other distributors (importers/processors/wholesalers etc.) perceived these products to have only «minor» to «growing» potential (average score 2.56). Of particular interest is the finding of no significant differences in the mean preference scores between UK and French distributors. This suggests that there are higher marketing barriers for consumer packs of fresh fish in the traditional distribution sector than in supermarkets, irrespective of location.

Market potential and barriers in the market.

The next set of hypotheses examined certain to possible relationships between the perceived potential for different types of products and the importance of factors (see Table 3) that could affect that potential. The analysis was conducted through calculating rank correlation coefficients between scores. Respondents gave particular product types and the importance they attributed to the table 3 factors. Those pair-wise relationships with rank correlation coefficients in excess of 0.5 (in absolute value) are reported in table 6.

Table 6. Correlation analysis of the relationship between perceived potential for fish products and barriers to increased sale of consumer fresh packed products.

Product	Barrier(s)	Corr. Coefficient	N=35	P=
Fresh consumer pack	Personal relations	-0.79	6	0.06
Fresh fillets	Raw fish market	-0.91		0.03
Fresh frozen	Personal relations	-0.79	6	0.06
	Customers awareness of quality	+0.77	7	0.04
Natural frozen fillets	Price/quality relationship	-0.84	7	0.02
Frozen portion cut	Switching cost	-0.67	10	0.03
	Personal relations	-0.58	10	0.08

The table shows a strong negative rank correlation between the buyers' perception of the potential for fresh consumer packs and barriers in the personal relations with sellers of such products. For fresh fillets, however, the perceived market potential appears to be negatively related to barriers in the raw fish market (irregular supplies, for example). In the case of fresh frozen products, the results suggest that interviewees' perception of the market potential is negatively correlated with personal relations between buyers and sellers and positively correlated to customer awareness of quality.

These findings provide support for the hypothesis that difficulties in personal relations between buyer and suppliers negatively affect buyer perceptions of the market potential for fresh-packed consumer products, fresh frozen packs and, to a lesser extent, products from frozen blocks. In addition, consumers' awareness of fresh quality is an significant barrier when it comes to buyers' judgement of the potential for fresh frozen products. Furthermore, limitations in the raw fish market may constrain the demand for fresh fillets.

How does the concept of freshness influence the frozen fish sales potential? Of interest is whether buyers recognize the difference between (1) frozen fish packed directly from fresh fish (fresh frozen) and (2) frozen products made from fish fillet blocks processed up to 10-12 days after catch, and if so, whether this has any impact on the potential for these products. In the interviews, we used both the terms "natural frozen" and "fresh frozen fillets" as products made directly from fresh fish. Only respondents in the UK were asked directly about "fresh frozen". The relationship between their recognition of the difference in quality in fresh frozen products and their judgement of the potential for these products is shown in table 7.

Table 7: Buyers recognition of the quality differences between fresh frozen and portion cut products and judgement of potential for natural frozen fillets.

Do you recognize quality differences between resh frozen and other frozen products?	How do you judge the potential for natural frozen fillets			
	No Good/ minor	Crowing good/very good	N	%
Yes	5	2	7	70
No		3	3	30
SUM	5	5	10	
	50	50		100
Pearson's R = *0.65* p = 0.04				

Table 7 reports that a positive relationship exists between the potential seen by the buyers for growth of the market for “natural frozen fillets” and the degree to which buyers do not recognize quality difference between fresh frozen and other frozen products. This suggests that emphasis on “freshness” is not recognized as an effective marketing argument for this kind of product.

The respondents’ general perception of the significance of the various barriers related to sales of consumer products produced directly from fresh fish are shown in table 8.

Table 8: Perceived barriers to increased sale of fresh based consumer products. Scale 1-5

Variable	Mean	Std Dev	Min.	Max.	N=35
Import duty	2.00	1.26	1	4	6
Special consumers	2.17	0.98	1	3	6
Personal relations	2.19	1.57	1	5	21
Limited supply	2.33	1.21	1	4	6
Switching cost	2.42	1.68	1	5	19
Uncertain supply	2.47	1.65	1	5	19
Under-promoted product	2.50	1.32	1	5	24
Uncertain quality	2.55	1.50	1	5	20
.Customers awareness of quality	2.57	1.21	1	5	21
High exit barriers	2.80	1.64	1	4	5
Products price/quality relationship	3.07	0.92	1	4	14
Demand	3,09	0.54	2	4	11
Investment in sales	3.20	1.10	2	5	5
Price	3.67	1.19	1	5	33

Table 8 shows that the interviewees perceived the main barriers (mean score >3) to increased sales of consumer products made directly from fresh fish, to be price, lack of investment in sales promotion, consumer demand (i.e. tastes and preferences for fresh products) and the price/quality relationship. Of the 35 respondents, 33 mentioned price as an important barrier, while fewer than 50% of the respondent mentioned those other barriers having an average score >3. This suggests that while, on average, the respondents identified these latter barriers as being relatively important, more than half of the respondents did not share this view. All of the other barriers mentioned by one or more interviewees received average scores of between 2 (small problem) and 3 (problem).

Personal relations with suppliers, switching costs (i.e. costs of changing to a different supplier), uncertain quality, under-promoted products and customers' awareness of quality were also mentioned as problems by at least 19 of the 35 respondents. These results support the hypothesis that consumer demand characteristics (lack of awareness of the quality advantages of fresh products and unwillingness to pay for it), are barriers to increased sales. Furthermore, there is support for the hypothesis that characteristics of the supplier companies themselves serve as barriers to the entrance of new suppliers. It is of interest to note that problems regarding import duties, needs of special consumers and supply limitations were mentioned by only 6 respondents, suggesting that they may not be of significant importance as a trade barrier.

Are there differences in responses as between French and UK buyers and between supermarket buyers and other distributors?

Table 9: Variation of perceived barriers to increased sale of consumer packed products based of fresh fish

	UK All	France All	UK and France		
			Supermarkets	Other distributors	
	Mean	Mean	Mean	Mean	p
Price	3.06	4.17			0.01
Switching cost	1.58	3.86			0.01
Personal relations	1.3	3.63	1.12	2.85	0.00/0.02
High exit barriers			1	4	0.05

Table 9 identifies those factors for which there were significant response differences among or between these groups. The respondents in France perceive price, switching cost and personal relations with suppliers as being more important barriers than do those in the UK, while respondents in supermarkets perceive personal relations and exit barriers (e.g. sunk costs associated with developing and maintaining personal relations) to be less important than do other distributors.

<u>Clustering of barriers.</u>

Pair-wise rank correlation coefficients between perceived barriers are shown in figure 3.

Figure 3 : correlation analysis of the relationships between perceived barriers to increase sale of consumer fresh packed products. ($p<0.05$)

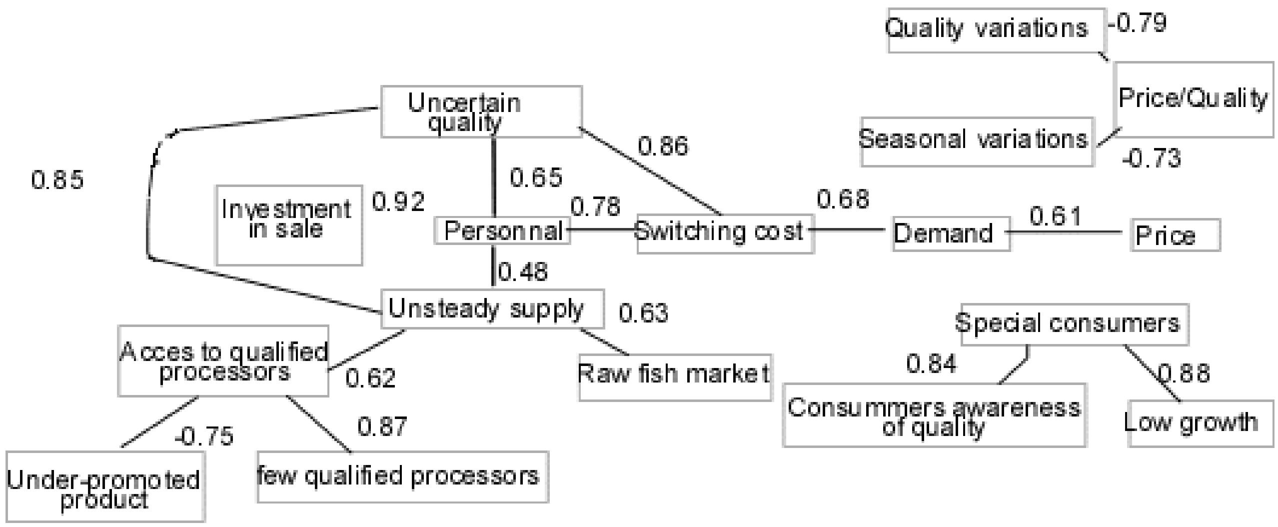

Figure 3 shows that there are three grouping of significant relationships between perceived barriers to increased sales of fresh consumer packed products. First, on a pair-wise basis, there are positive relationships among the following: price, demand, switching cost, uncertain quality, unsteady supply, personal relationships and investment in sales. Price as the most important barrier, is positively related to demand barriers**.** The results indicate that the degree to which demand is perceived as a problem is positively related to the degree in which switching cost from changing suppliers is perceived as a problem. This suggests that in a low demand situation, new entrants must squeeze out established suppliers in order to enter the market. On the other hand, when the market is growing, it is possible to attract new entrants without excluding the established suppliers.

Switching cost is also related to barriers in personal relationships. The latter are very important and strongly lied to the problems of uncertain quality, unsteady supply and suppliers' investment in sales promotion. More generally, the more uncertainty in quality and supply and the more the suppliers invest in sales promotion, the more important are personal relationships and the higher are the perceived switching costs. We also asked the buyers about their perception of barriers on the supply side. Figure 3 shows that unsteady supplies are positively related to perceived barriers in the raw fish market (sales of unprocessed fish from fishermen to processor) and to access to qualified processors. Access to qualified processors is, in turn, positively related (Spear man's R= 0.87) to the perception that there are few qualified processors in the market and negatively related to the perception that fresh-fish-based consumer packed products are under-promoted. This means that a supplier's ability to promote or to participate in promotion with distributors is perceived to be part of the definition of a "qualified suppliers".

The second grouping or relationships among perceived barriers contains those between the price/quality relationship and variations in (a) quality and (b) season. Both relationships are negative. That is, the greater that problems of seasonal and quality variations are perceived to be, the less important are problems of the price/quality relationship. This finding may mean that the prices vary more with quality and season in the fresh fish market than they do in other markets, e.g. that for natural frozen fillets.

The third grouping of relationships includes those concerning perceptions of customer-demand characteristics. The principal finding is that, the more that consumer awareness of quality or consumer preferences in general are seen as problems, the more is lower growth in a particular market segment perceived to a problem. Conversely, market growth is related to consumer awareness of quality.

Summary and discussion of the survey results.

The main research question in this paper is: What impact do the perceived structural changes in demand for fresh fish quality and in mobility (trade) barriers have for the market potential and trade pattern for fresh-packed consumer fish products?

Through a survey of major seafood buyers in the UK and France, we have found support for the hypothesis that the market potential for fresh fish is generally perceived to be better than that for frozen. The perceived potential for fresh fish products is highest in France. The potential for fresh and fresh frozen consumer packs are both perceived to be good. Supermarket buyers perceive fresh consumer packs to have considerably more potential than do other distributors.

The potential for consumer products from frozen blocks (e.g. fish slicks) is still perceived to be good in the UK, where they receive almost the same average rating as fresh fillets.

However, control over fresh fish catches and a perceived good market potential for fresh consumer packed (FCP) products are not sufficient conditions for a sustainable competitive advantage in this market. The survey identified several market barriers for such products, of particular importance to potential new suppliers. For example, we have found support for the hypothesis that the lack of consumer awareness of and willingness to pay for fresh quality are important constraints in the market for fresh quality fish products.

Thus, price is perceived to do the main barrier in the market. This perception is significantly higher among the respondents in France than in the UK. Other studies have shown that, on average, fresh fish is priced higher in the market than frozen fish, but that prices of fresh and frozen fish are related due to substitution in production [1]. The higher prices and margins may attract processors and distributors into the fresh fish market and away from the frozen fish market. Primary processing companies could also increase their share of the total processing value if they moved successfully from producing intermediate products from frozen blocks and into packaging of consumer products from fresh fish.

However, there are constraints to such moves. Fresh fish prices are generally higher in France than in the UK, and price seems to be a concern for the buyers. Price barriers are strongly and positively related to consumer demand, that is, to willingness to pay for fresh quality. The perceived price/quality relationship was also shown to be a problem for increasing the sale of FCP products. Absence of customer awareness of quality, was also mentioned by 60% of the respondents and carried an average score of 2.57. In other words, lack of customers' willingness to pay for the quality in FCP products is a major barrier to growth in that market.

These findings are consistent with those of previous seafood marketing research which has shown that, at the consumer level, the quantity of particular seafood species demanded is, with some exceptions, negatively related to its own price, positively related to income and expenditures and positively related to prices of other animal protein sources, including seafood [12].

Another hypothesis supported by present research is that conditions in the raw fish market constrain growth in the consumer market for fresh products, especially fresh fillets. Unstable supply is perceived to be a barrier in the raw fish market and negatively affects how well buyers perceive processors' ability to serve as quality suppliers. Conditions in the seafood market, especially for fresh fish, vary a lot because of variations in landing. The perceived potential for fresh fillets (the product estimated to have the highest market potential), is negatively related to barriers in the raw fish market. these variations in landings give a competitive advantage to those traders who are able to obtain supplies from many landings places around the coasts [1], [17]. Supply variations also give incentives for opportunistic short term market behavior**,** focused on daily price. These kinds of market conditions therefore, create problems for buyers who demand more stable relationships with their suppliers.

Other studies have shown that seasonally in catch and supply are significant factors explaining the profiles of product mixes and prices offered by the Norwegian fish industry and account for why the industry is viewed as being more production than marketing orientated [1], [3]. Danish traders take advantage of this, and can bring into the European market a more continuous supply of fresh fish, mixing the Norway supply with fish from the Baltic Sea, the North Sea, Iceland, and the Faroe Islands [18]. In general, control over quality in this value chain is shared by many, acting independently, and makes quality stabilization difficult.

We have also found support for the hypothesis that there are several constraints facing the supplier companies themselves. These must be mastered by a supplier seeking to enter the distribution chain for fresh-packed consumer products. For example, we found that the more demand is perceived by buyers to be a problem, the more is the cost of switching to new suppliers perceived as a problem. This finding supports the hypothesis that it is easier to enter a growing than a stable market. When the market is growing, demand is a less of a problem, and new entrants can enter the market more easily without threatening those already in it [13].

Our results suggest that positive personal relationship (e.g., through active product promotion by suppliers) are seen by buyers to be a valuable business resource, one that is difficult for new suppliers of fresh quality products to break up. The barriers of personal relationships and switching costs received high average scores, but both had significantly higher scores in France than in the UK. This may partly be because a relatively large number of small distributors were interviewed in France than in the UK.

Personal relationships, as a perceived barrier for FCP products, are negatively associated with the perceived potential for both fresh and fresh frozen consumer packed fish. The barriers in personal relationships are strongly tied to the problems of uncertain quality, unstable supply and the extent of supplier investment in promotion. In general, the more uncertainty in quality and in supply and the more the supplier invests in sales promotion, the more important are the personal relationships and the higher is the switching cost. These findings are consistent with the general observations of Dawsen and Shaw [14].

However, our study has uncovered some new developments. We observed that personal relations are regarded as being less important by supermarket buyers than by other distributors. There is also evidence that supermarkets are moving their personnel around within the organization to prevent the formation of personnel relationships with suppliers that are too strong [15].

These findings may be related to the degree of organized relationships between suppliers and buyers. Knox & White observed that because of the increasing volume of high quality produce required, retailers are obliged to work with a limited number of large suppliers who are capable of producing sufficient volume to meet these needs [16]. Such buyer-supplier relationships are developed over many years and are managed by <u>many persons</u> in each organization. A strong relationship is essential to be flexible enough to solve all the problems emerging from unstable seafood markets with highly perishable products. Such relationships can rely either on personal relations or on well organized relationships between two organizations that are less dependent on individual persons. Developing a management system independent of persons is also the main purpose of creation organizations [16]. Strong relationships between distributors, especially among the smaller firms, are more dependent on personal relationships. Importers and wholesalers are also affected by uncertainty in the raw fish market and, thus, are likely to form personal relationships. Supermarket buyers, however, use wholesalers to reduce supply uncertainty and, thus, find it neither necessary nor desirable to rely on personal relationships. For example, strong personal relationships to established suppliers, may act as an entry barrier for new suppliers that often bring in cheaper or better quality products. Supermarkets are dependent on such new suppliers to defend their own margins and be competitive in quality and price.

We have also found an interesting negative relationship between access to qualified processors and the perception that FCP products are under-promoted. This means that the less that access to qualified processors is perceived to be a barrier, the more is under-promotion perceived as a problem. There are two parts to the possible explanation: first, the distributor needs qualified processors (suppliers) who can stabilize the flow of the product, and, second, the produces themselves have to be promoted. If access to qualified suppliers is perceived as the main problem, promotion is then not perceived as a problem because there is nothing to promote. Promotion and qualified suppliers are therefore strongly tied.

With respect to frozen fish, we found that product quality and personal relations barriers are correlated with each other and with market potential. We interpret this to mean that buyers see potential for sales of fresh frozen products in circumstances where, on the demand side, customers have preferences for and know how to choose between fresh frozen and other frozen fish products and, on the supply side, actors in the value chain are able to direct a steady supply of the fresh quality product all the way from harvest to supermarkets and restaurants.

Natural fillets made directly from fresh fish should have a good market potential due to quality advantages. However, with respect to natural frozen fillets, the survey showed that the potential is not related to fresh frozen quality.

We believe the explanation to be as follows**:** While fresh frozen and natural frozen fillet are both produced directly from fresh fillets, natural frozen fillets can use older raw material. Thus, in the market, the natural frozen fillet is not perceived to be a quality product, and thus, price/quality relationships are not seen as a barrier to sales.

We turn finally to the question that motivated this research in the first place, which is why perceived increases in the demand for fresh fish quality and reduced barriers to trade have not led to increased export opportunities for Norwegian sellers. Our survey results suggest that company and not country is perceived to be the main discriminating factor when buyers are selecting suppliers. This indicates that the differences in strategies across companies are perceived to be more important than differences across institutions and governments. This suggests, further, that it is the companies way of handling barriers that determines their success. The winners in this new competition for success in value-adding processing are those companies able to satisfy the consumers' and distributors' demand for quality in all aspects of their relations with buyers. So far, those processing companies furthest along the market channel, that is, located closest in the end customers seem to be the winners.

In general, as the trade barriers into the EU are reduced, winners in the short run are those suppliers that can satisfy the growing supermarket sector, whose buyer-seller relationships are of a multi link nature. This means that holding power in such a multi- link structure provides a stronger competitive advantage than does control over fresh fish landings.

Our findings support the idea that strategic groups form very significant harriers to shifting strategic positions among themselves [20]. Forming strategic groups of primary processors of semi-processed products (e.g. fish blocks and salted fish) near the fishing ports and processors of consumer packed products, near the customers, has taken place over a long period of time (Figure 1).

This process is incrementally developed, based on the main constraints in the production and market structure (Figure 2). To be competitive, the companies invest in specific assets such as technology, access specific quality and quantity of raw material and in skills in marketing and production. In addition government regulations enforce the industrial structure and the formation of strategic groups [21].

However, we have shown in this study that the removal of import and export regulations does not, in the short run, result in more value-added production and export. The industrial bases of assets and skills in the primary processing fish industry is built up in strategic groups specialized in semi processed products. The constraints of specialization in the companies themselves, are suggested to be the main explanation for the slow economic performance by Norwegian companies in the export of value added products after joining the EEA agreement. However, investment in those new assets and skills required to be competitive in the production of fresh packed consumer seafood products, takes time to show results. Based on the Norwegian assets in access to fresh landings, the possibilities in the production of fresh quality consumer products are still untapped.

Marketing and research implications

For processing companies that control fresh fish quotas and landings, there are many opportunities to develop market power. The primary processors' advantages are access to fresh quality, cost efficiency by doing all processing in one step and reduced transportation cost**,** when compared with companies that have to buy whole fish from the primary processors. Multinational seafood processing companies and supermarkets have only moderate capacity to enforce their market power because they have limited control over seafood quality. Most of the control lies in the hands of the primary processors.

To take advantage of their potential market power, the primary processors must, as a first step, develop the skills and the assets to qualify as reliable suppliers of fresh fish quality. What is ultimately required is a continuous stream of fresh quality products flowing from the point of harvest to the point of consumption in the most economically attractive market segments [8]. Distributors perceive that access to such qualified processors is a problem because there are so few of them in the market. This is the case despite our finding that 50% of the supermarkets and 20% of other distributors we interviewed were interested in new qualified suppliers. The second step required of primary processors is to communicate the quality advantages they can offer to distributors, supermarkets and the end consumers. As a generic marketing strategy the quality advantages of fresh seafood should be emphasized.

These marketing steps are, of course, standard procedures in most market-oriented businesses. Why have the fish processors not adapted to these principles to a much greater degree?

One main barrier can be found in the raw fish market. At least this is what was reported by those respondents who otherwise see good opportunities in the market for fresh fillets. This perception indicates that factors such as quota management, seasonally in fishing, quality variations from different handling methods and vessel types and the organization of first hand sales from the fishing boats, act, at least indirectly, as constraints in the fresh fish market.

In order to improve performance in the market for fresh seafood, focus should be put on technological advances and organizational changes that address instability in supply, problems of seasonally and preservation of quality along the market channel. Marketing barriers for fresh products should be further studied at the level of first hand sales, in the management of quotas and the fishing process, and in the suppliers' market orientation, perception, skills and assets.

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Figure 2 Competition pattern between the value chains in coastal and consumption countries regarding value-adding processing of fresh landings (Own development.)