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Shetland White Fish Processing Industry:  
Is Marketing the Answer?

**Dominique Rommel**

North Atlantic Fisheries College, Port Arthur, Scalloway, ZE1 0UN Shetland, UK

## **Abstract**

One quarter of the Shetland Islands' economy is fisheries related. Despite public investment, white fish processors experience chronic financial difficulties. The local Enterprise Company, wishing to structure further aid, commissioned a strategic review of the sector. The study used financial analysis, benchmarking, fish market data as well as interviews and visits to assess the situation of the processors.

The Shetland processors produce small frozen fillets for North America, but they experience shortages of supplies. Some Shetland fishing boats land their catch on Scottish markets where they hope to obtain higher prices. Processors want compulsory landings at the Shetland fish market to solve the problem of supplies. Lack of supplies could however also be interpreted as overcapacity and overinvestment. This interpretation is confirmed by high depreciation.

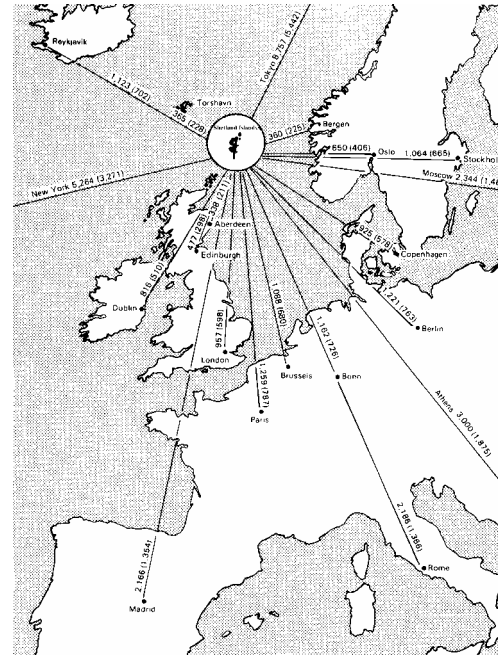
Fish market data reveal that Shetland processors only buy 29 % of the value of the fish landed in Shetland. Scottish processors buy the more expensive fish, which leaves the islands without any local value-adding. The marketing opportunities in the chilled, high value fish markets are used by the Scottish competitors. The static turnover confirms that Shetland processors give a low priority to sales and marketing. Low return on capital and low fixed assets ratio could be attributable to semi-public shareholding which gives a higher priority to employment than to profit.

## **Keywords**

Fish processing, raw material supplies, financial analysis, benchmarking, marketing, public aid

## Introduction

This paper is based on a study commissioned by a local government agency, Shetland Enterprise. The need for this study arose because the financial situation of the whitefish processing industry in Shetland causes concern. During recent years, factories have closed and workers have been made redundant. The three remaining whitefish processors are concerned about the viability of their sector. Profitability has become very low and financial difficulties are commonplace. The processors blame shortages of supplies and demand that Shetland boats be compelled to land their fish in Shetland. The processors, who have benefited from various types of assistance over the years, seek grant aid to avoid closure. As some of the processors provide a large share of the employment in remote rural areas, their closure could disrupt the social fabric of these areas.



**Figure 1. Location of Shetland**

## Methodology

This study uses a combination of several methods. Interviews with managers and factory visits provided information on marketing strategy and product range. Raw material analysis is based on official landing statistics; buying behaviour was deducted from fish market data. The study uses ratio analysis to assess the performance of the companies. The financial information came from published accounts. In order to present a concise picture and to make bench marking possible, the average of the three individual ratios was used. Because businesses in different sectors perform differently, the average Shetland ratio was compared to an average Scottish ratio. For this benchmarking, the study used five Scottish companies, selected through desk research and after consultation with the local industry. These companies were of nearly similar size to the Shetland companies and were also white fish primary processors.

The study used the following ratios:

**Profitability**, measured by the Return on Capital Employed ratio:

$$\frac{\text{Net profit}}{\text{Total assets} - \text{current liabilities}} * 100$$

**Liquidity**, indicated by the Current Assets ratio:

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

**Efficiency** measured with three ratios:

- Debtor turnover ratio

$$\frac{\text{Debtors} * 365}{\text{Turnover}}$$

- Creditor Turnover ratio

$$\frac{\text{Creditors (less than one year)} * 365}{\text{Purchases}}$$

- Fixed Assets ratio

$$\frac{\text{Turnover}}{\text{Fixed tangible assets}}$$

**Solvency**, calculated with the help of the borrowing ratio

$$\frac{\text{Creditors} > \text{one year}}{\text{Shareholders' equity}}$$

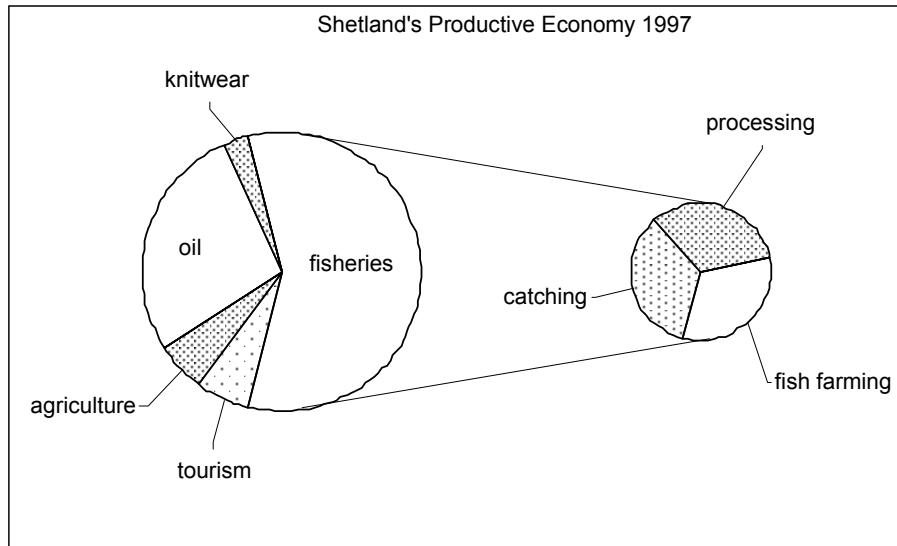
**Depreciation**, calculated as a percentage of sales:

$$\frac{\text{Depreciation} * 100}{\text{Turnover}}$$

## 1. Overview of the Shetland Fishing Industry

The Shetland Islands, located some 100 miles to the North of the Scottish mainland, are highly dependent on fisheries as a sustainable activity. Agricultural land is of low

quality; climatic conditions are such that both agriculture and tourism offer little development potential. Transportation costs and remoteness are a barrier to investment in manufacturing industries. North Sea oil has made investment in infrastructure possible over the last 20 years, but the Shetland oil economy is now in steady decline.



**Figure 2. Shetlands Productive Economy 1997**

Combined fisheries industries (fishing, fish farming and processing) dominate the local productive economy with a value of £ 153 million (1997). Fish catching represents £ 45 million, salmon farming £ 47 million and primary fish processing £ 61 million (pelagic, demersal and salmon). In 1997, pelagic landings in Shetland accounted for 40 % of value (£9 million), whitefish landings for 50 % of value (£ 11 million) and shellfish for 10 % (£ 2.5 million). Shetland vessels landed another £ 22.5 million worth of fish outside of Shetland. This is partly pelagic fish but also some white fish. Processors want this practice to end by imposing compulsory landings at the Shetland fish market. The market still operates as a voice auction without grading or weighing.

Demersal fish processing amounts to only 10% of all fish processing, or £ 6 million. The major part of landed white fish - and in particular the higher value larger fish – leaves Shetland unprocessed. The fisheries industries employ 20 % of the total workforce of the islands: 9 % in fish processing, 5% in fish catching and 6 % in fish farming.

The 1960s were glorious years for the Shetland white fish processors. There were 15 factories; which exported most of their production to the USA. In 1999, however, there are only three companies left. Their ownership could be described as semi-public. The majority shareholders are not entrepreneurs, but organisations representing the local community or local employees. The first company has two factories in Shetland and one in England. Ownership is divided between the Directors and a local Trust. The second company has a large factory in a remote location, where it offers 18% of local employment. Ownership is divided between a Fish Producers' Organisation and local inhabitants. The third company is located on an outer island. Ownership is distributed among some 80 local shareholders including fishermen, fishing vessels, local fishing co-operatives and employees. The factory provides around one fifth of the island's employment. 75 % of the employees are women. The processor has been described as "*a vital element in the foundations of economic life*" on that island.

## 2. Analysis of the Processors

### **Sales & Marketing**

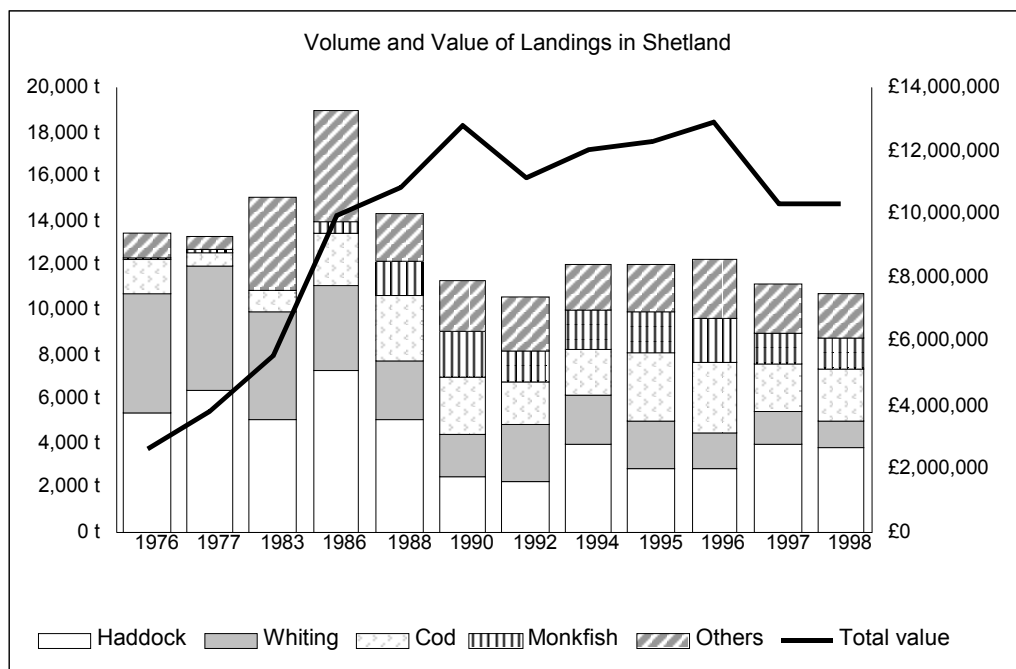
Around 85% of the products are frozen blocks or IQF (Individually Quick Frozen) fillets. A slow shift towards chilled products is taking place. Over 71% of fish processed are haddock, whiting and cod. Some mackerel is smoked during the summer months as well as some Shetland salmon.

More than half of the production is exported; the main markets are North America (24%) and France (24 %). The main customer segments are secondary processors (60% of sales) and wholesalers (30%). Nearly all the products are sold under customers' brand names.

The customer base is old; there is no co-ordinated effort to acquire new customers. There are no dedicated sales staff and there are no sales objectives.

### **Raw Material Supplies**

The processors perceive lack of raw material as their main problem. Allegedly, demersal vessels landing their catch in Scotland cause this. The processors unanimously claim that sales to existing customers could increase by 100 % if more raw material was available. The analysis of white fish landings in Shetland does not

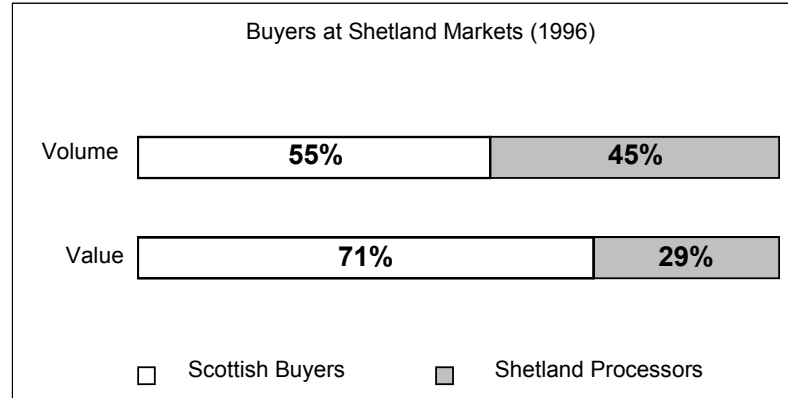


**Figure 3. Volume and Value of Fish Landings in Shetland 1976 – 1998**

indicate that there has been a drastic reduction in landings. As shown in Figure 3, during the mid 1970's the volume was around 13,000 tonnes, whereas over the past 8 years it was around 11,000 tonnes. This reduction by 15 % does not explain the processors' problems. However, the graph also indicates that the value of fish landed has changed dramatically. It was around £ 2 million in the mid 1970's; the value multiplied by five to reach £ 10 million in 1997. This rise in value is not only due to inflation; the species of fish landed in Shetland have changed. In the mid 1970's haddock and whiting constituted over 80% of landings; in 1998 the fishery was very mixed and haddock and whiting comprised only 46% of landings. A larger proportion of higher value species such as monkfish caused this increase in value. The Shetland markets thus have evolved towards a slightly smaller volume of much higher value fish.

Further analysis reveals that the Shetland processors have not acted upon this shift in landings. The study of buying patterns at the Shetland markets shows that the higher value fish is purchased by Scottish buyers (see Figure 4). This fish is shipped to Scotland without any value adding in Shetland. All processing is done on the Scottish mainland. Local processors purchase 45% of the volume of whitefish sold in the local markets. Whereas this represents a significant part of sales at the market, it is only 29% of the value sold. Although processors complain about a shortage of supplies, they appear to buy only a small part of what is on offer at the market. They

buy cheaper fish.



**Figure 4. Buyers at the Shetland Fish Markets (1996)**

### **Plant & Production Capacity**

In the early 1990's, the three Shetland white fish processors refurbished their factories to comply with European hygiene regulations; at the same time they renewed quite a lot of machinery. Plant is therefore modern and efficient. There is however an important over-capacity. Managers of the factories stated that they produce less than half of their total output capacity.

### **Financial Analysis Of Whitefish Processors & Bench-marking**

#### **Turnover**

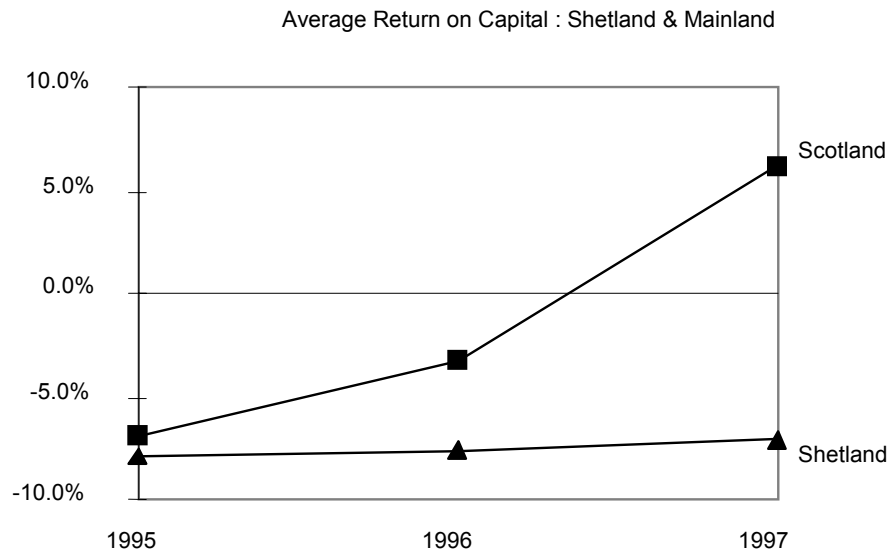
The total turnover of the three Shetland whitefish processors in 1997 was just over £6 million. This figure has remained nearly constant over the past three financial years. The turnover of the mainland processors has fluctuated a lot over the same period. The static Shetland turnover is safe and makes planning easy, yet a total absence of growth is often considered a poor performance, endangering a business's future. The absence of growth can be related to the static customer base and absence of active prospecting.

#### **Profitability**

Profitability in recent years has been bad. In 1997, only one Shetland processor made a (very modest) profit. The results of the Shetland processors show a worsening trend contrary to the mainland examples where profit is slowly rising.



Figure 5 shows the Return on Capital Employed Ratio. This ratio is of particular interest to the shareholders of a company. The average for the three Shetland processors has been negative over the period considered. There is no upward trend either. The mainland average ratio was negative in 1995 too, but it shows a remarkable positive trend in 1996 and 1997. This type of clear upward trend could be an indication of firm intervention by shareholders, forcing management to take measures to achieve a positive return. The low ratio of the Shetland companies indicate that the semi-public shareholders of the Shetland companies attach less importance to a high return but more importance to the employment provided by the companies. As mentioned before, a high proportion of the shares are in the hands of members of the public in Shetland or of community trusts.



**Figure 5 Average Returns on Capital Employed for Shetland and Mainland Processors**

### **Liquidity**

The Current ratio measures the extent to which short-term debt (i.e. current liabilities) is covered by current assets. All three Shetland processors had a healthy liquidity ratio. The ratio has been favourable over recent years. The Shetland processors have had a higher liquidity than the mainland examples. However, Shetland processors show a downward trend and mainland processors an upward trend, ending up at nearly the same level in 1997.

### **Solvency**

Borrowing is steadily increasing over the years. The solvency ratio has worsened a lot in 1997. This is due to two factors: increased borrowing to finance recent investments and accumulated losses, which have gradually reduced the value of the

shareholders' funds. The Shetland processors are in a better position to meet long-term debts than the mainland processors. A slightly worsening trend exists both in Shetland and on the mainland.

## Efficiency

### (1) Debtor Turnover Ratio

The customers of the Shetland processors pay slowly. This is particularly problematic in the fish-processing sector, because the fish market - the processors' supplier of raw material - has to be paid within one week. Slow debtors can result in cash flow problems. The mainland processors have shorter payment periods than the Shetland processors. The slow debtor payments are partly caused by the export sales to North America. It takes four weeks for the container of fish to reach its destination and it takes another four weeks for the payment to arrive in Shetland. However, high outstanding debts can also be an indication of bad debts and poor sales. Because the processors have difficulties increasing their turnover, it might become tempting to apply a slacker credit policy and to sell to customers who are bad payers, because these are the only customers left.

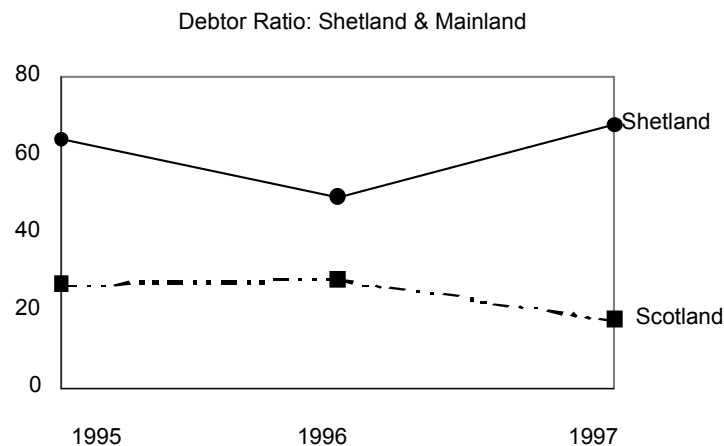
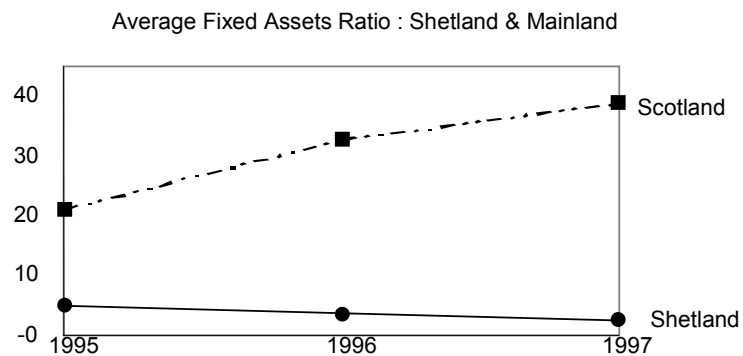


Figure 6. Debtor Ratio for Shetland and Mainland Processors (1995-1997)

### (2) Fixed Assets Ratio

The ratio, which measures fixed assets against turnover, is another indication of efficiency. It shows whether investments have resulted in a higher turnover. The higher the ratio, the greater the recovery of investment. The graph below shows how the Shetland processors have performed poorly in comparison to the mainland

processors whose performance was satisfactory. Shetland processors have recently invested a lot, but these investments have not resulted in a higher turnover. New investment increases depreciation and financial charges. Investment can therefore have an adverse effect and worsen the financial situation rather than improving it. The plant of the Shetland processors is probably much more modern than the mainland examples, but this has not resulted in a higher turnover and a good recovery of the invested funds. It could be argued that over-investment has taken place in Shetland.



**Figure 7. Average Fixed Asset Ratio for Shetland and Mainland Processors (1995-1997)**

### Depreciation

Average depreciation of Shetland processors is higher than that of mainland processors. This places Shetland processors in a less favourable competitive position, as a larger part of the profit margin has to be used to pay for machinery.

## 3. Conclusions & Follow Up

This study has looked at the marketing strategy and the financial performance of three white fish processors in Shetland; financial ratios became more meaningful when benchmarked against those of other companies in the same industry. Raw material availability was assessed with the aid of fish market data.

The findings of these different perspectives reinforced each other. It appears that:

- Processors believe there is a lack of raw material because of the reductions in

landings of haddock and whiting - the species which they have been buying for the past 40 years.

- A high price and increasing landings of monkfish are evidence for growing consumer demand for this species.
- Shetland processors miss a marketing opportunity by not offering monkfish to their customers
- The static turnover of Shetland processors is evidence of the low priority given to sales and marketing. High debtor ratio could indicate poor selection of customers. A more proactive, marketing-oriented attitude could improve this.
- High depreciation and perceived lack of raw material are indicators of over-capacity and over-investment
- Low return on capital and low fixed assets ratio indicate that the local (semi-public) shareholders and other providers of funds do not consider performance the most important criteria for their support to the processors. These shareholders attach more importance to the provision of employment in remote areas.

This study has been one of the elements, which has led to the restructuring of the white fish-processing sector in Shetland. Two of the three processors and a sales company merged into a single new business. This will enable the processors to reduce their over-capacity. The marketing strategy of the new company focuses on chilled products for European markets.

The approach used in this study could be replicated for the analysis of other fish processors. The combination of fish market data with benchmarked ratios has proven particularly revealing in this case.

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