7 How do different firms benefit?

We know that some firm types are more likely to cooperate in the first place and then more likely to cooperate in certain ways. What we wish to find out now is the specific benefits flowing to cooperating firms and how these vary between firms. This has implications for government program managers either wishing to target particular firms or to promote more widely the range and degree of benefits available to cooperating firms.

In the first part of the chapter (Section 7.1) we look at the firm characteristics which are clearly significant in explaining a greater likelihood of benefits from business cooperation. These are industry, size, technology content and exporters. We then consider the relationship between other firm characteristics and benefits. The benefits associated with specific competitive advantages and performance constraints of firms are discussed in Sections 7.2 and 7.3 respectively. The chapter is summarised in Section 7.4.

7.1 Benefits and firm characteristics

7.1.1 Industries

A comparison of the major cooperation benefits by industry reveals some interesting facts (Figure 7.1). In terms of rankings, increased profits/sales leads the way in three of the five industries. However, it is a very distant second for cooperating firms in the Scientific/medical industries, where one-half of the firms obtain major benefits in the form of market knowledge. Market knowledge is also a major benefit in the other industries, with the exception of Clothing and footwear where only 22 per cent of cooperating firms obtain market knowledge benefits from their links.

New overseas customers and suppliers and product development also emerge as major benefits (Figure 7.2). The importance of new overseas customers/suppliers is particularly relevant to cooperating IT&T firms, with half of them benefiting in this way. These overseas benefits are also important to firms in the Food and Scientific/medical industries, but less so in Engineering and of no real value at all to Clothing and footwear firms.

A smaller proportion of firms in the Clothing and footwear and Food industries see product development (a key proxy for innovation benefits) as a major benefit. Firms in the other three industries are all just as likely to obtain above average product development benefits from their cooperative arrangements.

Figure 7.1 Major benefits of cooperation, by industry

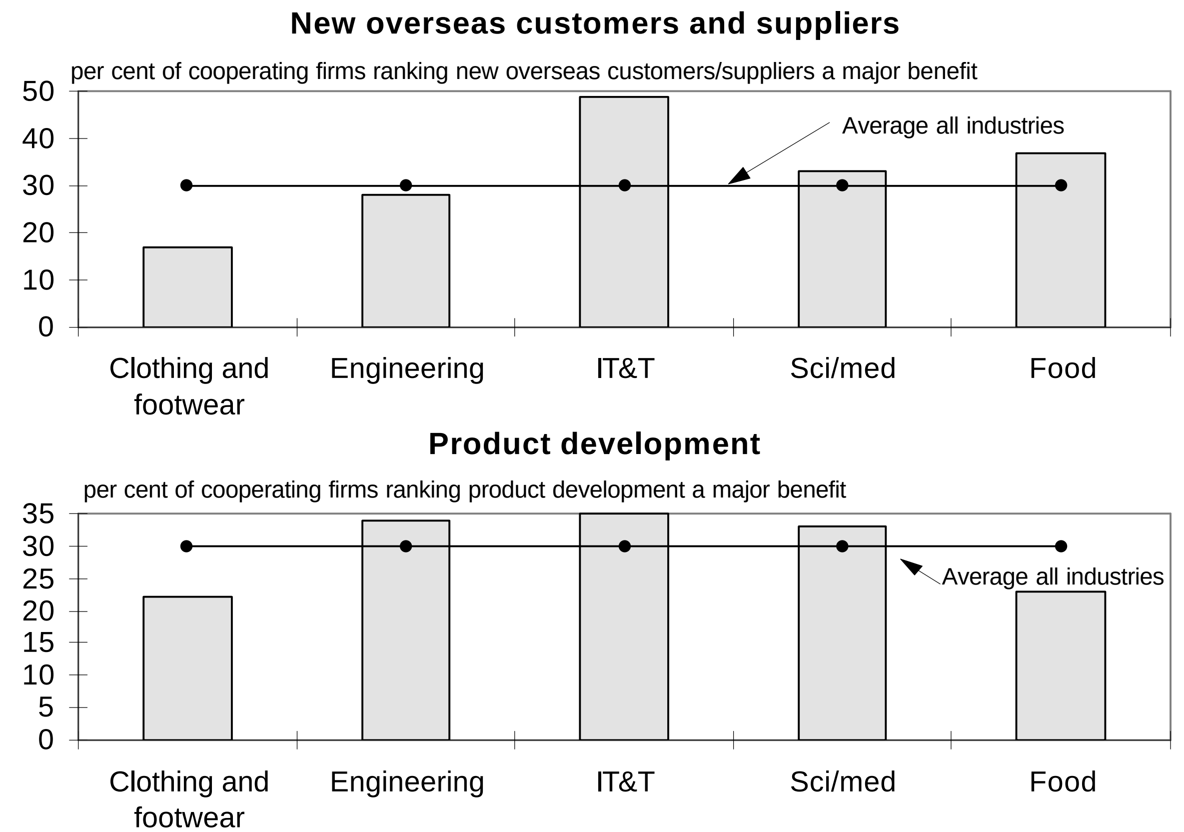
BI Clothing & footwear	27
BI Engineering	33
BI IT&T	39
BI Scientific/medical	36
BI Food	34

Source: BIE survey

Overall, IT&T firms appear to be benefiting the most from cooperative arrangements. The three major benefits rate very highly and the Benefit Index (BI) for IT&T firms is, at 39, very high[1]. This is higher than any other industry and compares with a Benefit Index of 32 for all industries. The other interesting result for IT&T firms is the significance of increased bargaining power. Links give firms more leverage in negotiations and discussions which is not available (to the same extent) in normal arm's length transactions.

1 See Section 6.1.3 for an explanation of the 'Benefit Index'.

Figure 7.2 Major cooperation benefits – new overseas customers/suppliers and product development



Source: BIE survey

Firms in the other relatively "high-tech" industry, Scientific and medical equipment, also appear to be significant beneficiaries of inter-firm linkages. The importance of market knowledge to Sci/med firms has already been noted. The great store placed on improved delivery/distribution by Sci/med firms vis-a-vis increased bargaining power by IT&T firms is the only difference in major benefit types between the two industries.

This would seem to reflect basic differences in their structure and nature. Some Australian firms in the IT&T industry may be looking to strategic linkages to help them gain access to the MNE controlled global distribution networks, while the importance of exports to Sci/med firms implies a critical reliance on efficient delivery and distribution mechanisms (see Box 7.1).

Cooperating firms in the Food industry benefit well from increased profits/sales, market knowledge and new overseas customers/suppliers. Around one-third of cooperating Food firms also obtain major benefits in the form of improved quality for their products. Food processing firms are subject to considerable regulation in the interests of public health and the Food industry generally is facing growing competition. A combination of these factors may in part explain this emphasis on quality.

Box 7.1 Dealing with distributors

KDB Engineering is a medium-sized Western Australian company making hospital and rehabilitation equipment. It is the largest manufacturer of rehabilitation equipment in Australia.

Most of KDB's production is for the Australian market but it has recently commenced exporting to New Zealand, Singapore, Indonesia and Japan.

With the majority of its markets thousands of kilometres form Perth, KDB requires an excellent distribution network. Its eastern seaboard distributors started off as arms length relationships but gradually built up in importance. KDB talks to its distributors all the time and meets them as regularly as possible.

The feedback received from its distributors is very important to the company and not only in relation to delivery and distribution operations. Different states (and overseas markets) react differently to KDB's products and this information is passed on to KDB management. The company learns a lot about its markets in this way. The close working relationships with its distributors also assists KDB in improving the quality of its products and developing new ones.

Source: BIE interview

Clothing and footwear firms have the lowest participation in inter-firm cooperation (see Chapter 4) and are demonstrably benefiting the least from their cooperative arrangements. In only two areas do more than 30 per cent of cooperating firms receive major benefits from inter-firm cooperation, and the fourth ranked benefit, at 22 per cent, is over 10 percentage points less than all the fourth-ranked benefits in the other industries.

The high score for improved production processes in the Clothing and footwear industry would seem to be a reflection of the competitive nature of the industry and the constant pressure to keep the lid on cost increases. Similarly, the relative importance of quality to cooperating Clothing and footwear firms probably reflects these competitive pressures as well as the significance of quality in product choice by the industry's consumers. Customers and suppliers are working together to get things right in terms of both quality and production runs (see Box 7.2).

Box 7.2 Smoother production through cooperation

Candy Footwear prides itself on being the biggest ladies footwear manufacturer under one roof in Australia. A subsidiary of Dunlop, it had a turnover of $28.4 million in 1993/94 and experienced growth of around 16 per cent.

To sustain this growth rate Candy Footwear must cooperate closely with its domestic suppliers, especially the suppliers of footwear soles. The company orders daily requirements from its suppliers who coordinate their production to fit with Candy's production schedules. A two week turnaround time is the norm.

This procedure provides benefits for both sides. Advance purchasing of suppliers' raw materials helps the cash flow of the supplier, and in turn ensures a guaranteed supply for Candy. In fact on one occasion Candy split orders to sustain a reliable supplier.

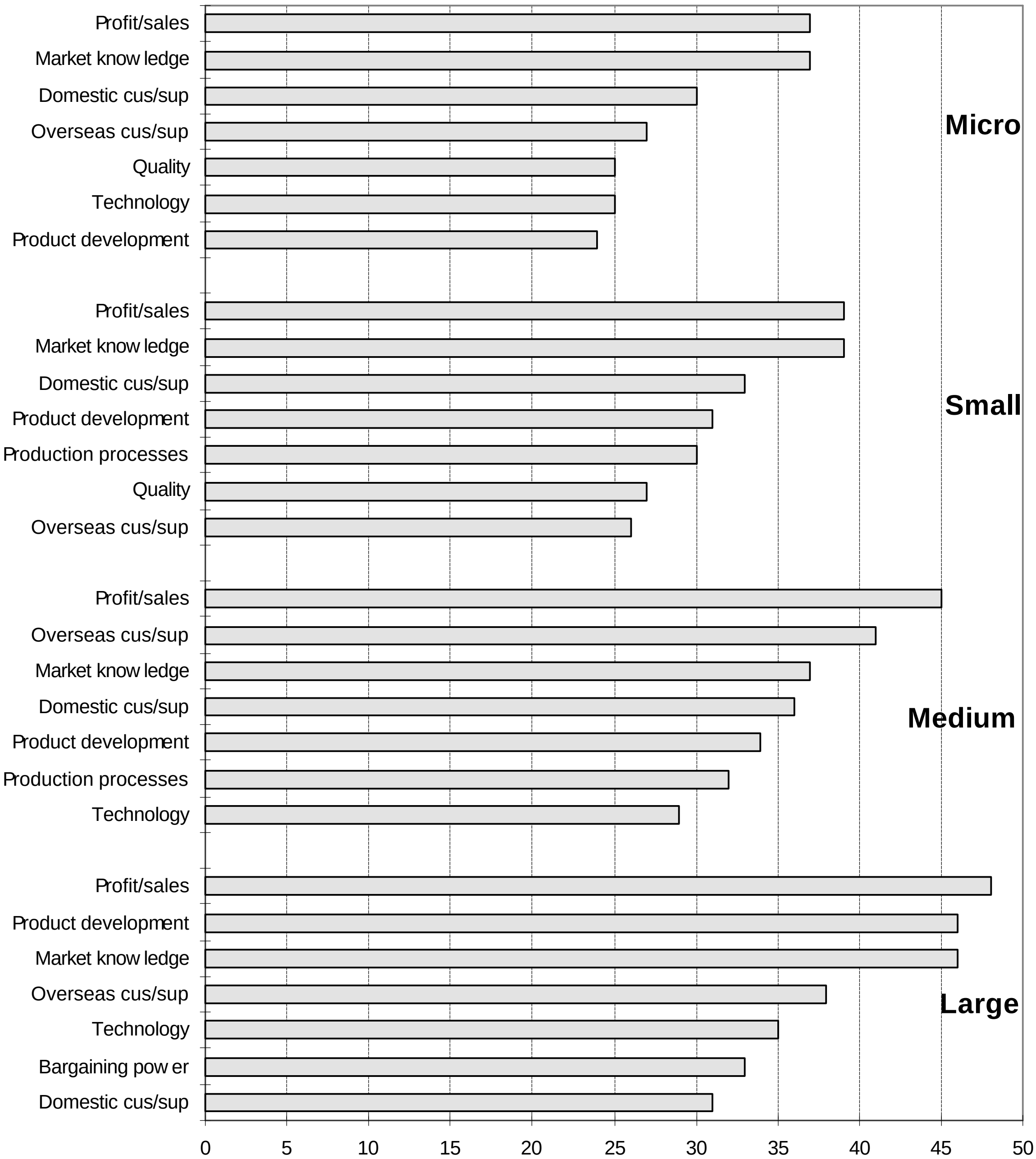
This cooperative system is absolutely critical when demand is growing rapidly as it avoids bottlenecks in production.

Source: BIE interview

7.1.2 Size of firm

One of the cornerstones of government policy relating to business cooperation is that SMEs have much to gain from forming linkages with other firms. A major objective of AusIndustry's Business Networks Program, for example, is for SMEs to obtain the economies of scale and scope which are available to larger enterprises.

Figure 7.3 Major benefits of cooperation, by firm size



BI Micro 29
BI Small 32
BI Medium 36
BI Large 40
Source: BIE survey

Large firms benefit too of course from business cooperation. The results of the BIE survey provide answers as to just how both large and small firms benefit from cooperation and the relative importance of different benefits to the different-sized firms.

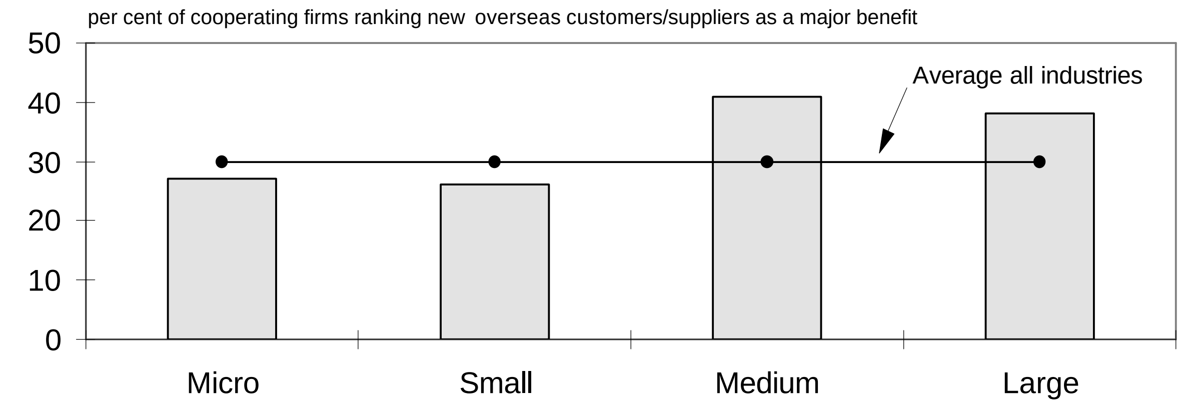
The major benefits of cooperation for micro, small, medium and large[2] firms are shown in Figure 7.3. The first point to make is that firms of all sizes are benefiting substantially from business cooperation; that is, no matter how big or small a firm is, it has the potential to obtain significant benefits by forming linkages with other firms.

It is also evident that the likelihood of benefiting from business cooperation increases with firm size. Thus the BI of 40 for large firms compares with a BI of 29 for micro firms. These disproportionate results are probably mainly explained by the fact that larger firms are generally more likely to have a greater number of arrangements.

Large firms have three very prominent types of benefit; increased profits/sales, market knowledge and product development. Close to 50 per cent of large firms obtain major benefits in each of these areas from their cooperative arrangements, a result well above the average. Large firms also derive above average benefits from new overseas customers/suppliers, access to technology and increased bargaining power. The combination of technology and product development benefits suggests an underlying innovation rationale behind many large-firm linkages.

New overseas customers/suppliers (Figure 7.4) are a major cooperation benefit for medium-sized firms, in fact slightly more so than for large firms. It stands out as a major reason why medium firms are forming cooperative arrangements, other than for increasing sales and making profits (which is also above average). The innovation factor also seems to be present for medium firms with the inclusion of product development, improved production processes and technology access in the major benefits.

Figure 7.4 New overseas customers/suppliers benefits, by firm size



Source: BIE survey

The emphasis placed by both large and medium sized firms on new overseas customers or suppliers is not shared by smaller firms, although around one quarter of the two small firm groups are still benefiting in this way.

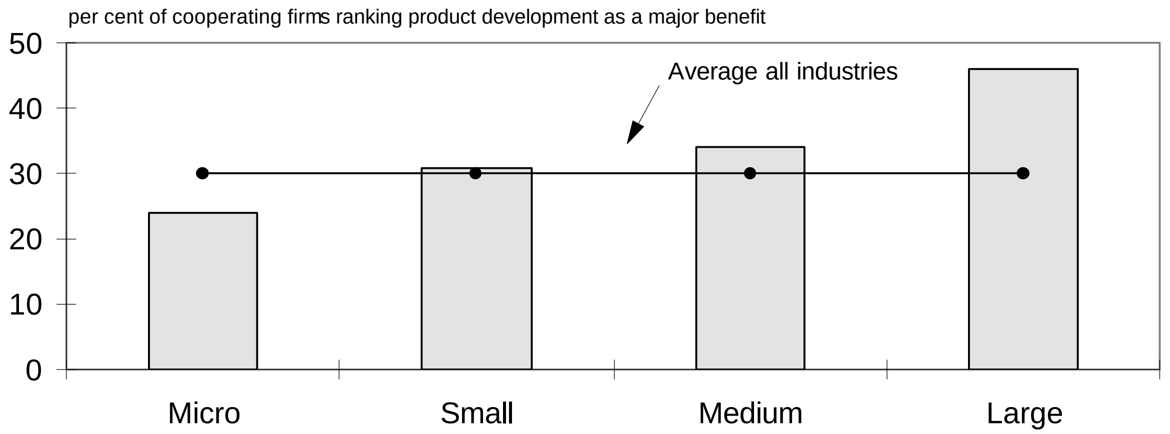
This is an encouraging finding for those who emphasise the importance of overseas customers/suppliers (AMC and McKinsey 1993, 1994). The fact that even the smallest of firms are using cooperation to access overseas markets or to find new overseas suppliers is a very positive aspect to business cooperation in Australia.

2 Definitions like 'large' or 'small' are always somewhat arbitrary. We are not out to provide sterile defences of what we term 'large', 'medium' or 'small' firms, but rather to show what happens to benefits when you look at different-sized firms.

Small and micro firms are very similar in nature regarding the importance they attach to the three leading reasons for forming linkages. The inclusion of new domestic customers/suppliers and the absence of both new overseas ones and product development are the notable differences between small firms and medium to large firms. Product development does however come in fourth for small firms and new overseas customers/suppliers fourth for micro firms.

Product development is interesting to observe over the different firm sizes (Figure 7.5). Along with increased profits/sales, it is the only benefit to clearly increase with each step up from a micro to a larger firm. Thus, 24 per cent of micro firms benefit from product development through business cooperation, 31 per cent of small firms, 34 per cent of medium firms and 46 per cent of large firms.

Figure 7.5 Product development benefits, by firm size



Source: BIE survey

Market knowledge is also worth highlighting. A minimum of 37 per cent of firms (micro, small and medium) improve their knowledge and understanding of their markets through business cooperation. The proportion rises to 46 per cent for large firms. This underlines the importance of market knowledge as a very positive spin-off from cooperation – it is something all firms can benefit from, regardless of size.

Overall, the leading three or four major benefits do not vary a great deal with firm size. Profits/sales, market knowledge, new overseas firms, new domestic firms and product development tend to be there in most cases. The degree of benefit does however vary, with a stronger probability of major benefits from cooperation flowing to the medium and large firms.

7.1.3 Technology content

If you had to use a primitive yardstick you would probably rate IT&T and Sci/med as high-tech industries, Clothing and footwear as low-tech and Engineering and Food as mainly medium-technology industries[3].

However, these coarse descriptions will not tell the whole story regarding the technology content of a firm's product, given that there may be considerable variations within industries. For example, not all Sci/med firms produce high-tech products while some Engineering firms clearly do.

3 Definitions of high, medium and low technology firms are contained in the glossary.

High-tech products present a picture of being all about linkages, essentially because of the difficulty of a single firm being able to do everything in rapidly changing and sophisticated market sectors. Low-tech firms, on the other hand, do not rely on cooperative arrangements to the same extent in their normal day-to-day operations (Chapter 4).

The benefits flowing from cooperation from firms with varying degrees of technology content in their products accordingly provides an interesting comparison. Are firms which tend to rely more on linkages in the normal course of business more likely to benefit the most from cooperative arrangements? Alternatively, are benefits likely to be higher for firms not so used to cooperation and which make special efforts to form productive linkages?

Figure 7.6 depicts the major benefits for firms according to the level of technology of their output. The answer to the above questions are immediately apparent. There seems to be no doubt that the greater the technology content of a product the greater will be the likelihood of firms receiving major benefits from their cooperative arrangements.

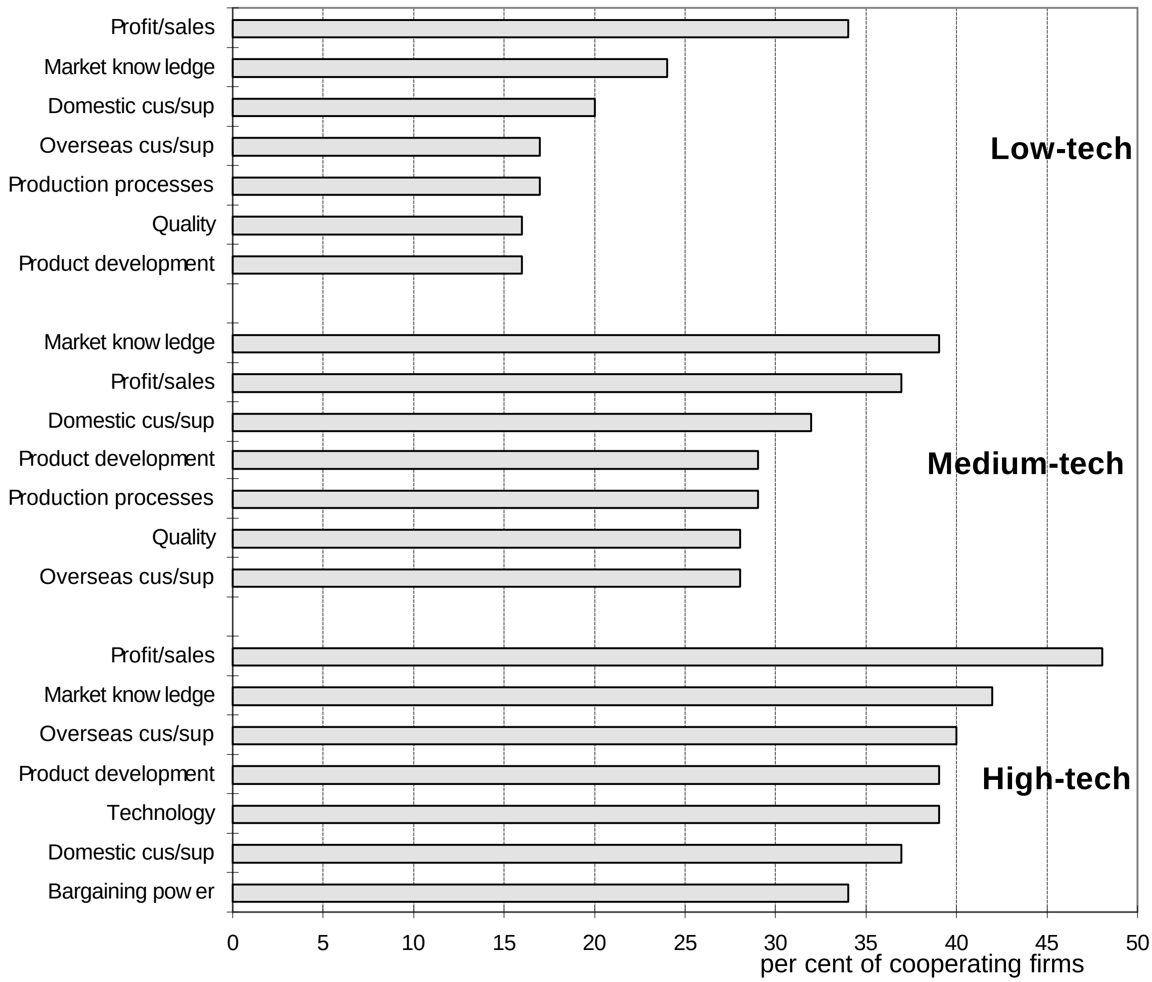
Overall, high-tech firms are benefiting much more from cooperation than medium and low-tech firms (BIs of 39, 28 and 21 respectively). These results are significantly different from the benefits by industry in Section 7.1. This demonstrates the dangers of attributing certain technology levels to particular industries.

High-tech firms are clearly outstanding beneficiaries of inter-firm cooperation. The fact that even their *fifth* most important benefit, product development, is experienced by 39 per cent of firms is a good indicator of the importance of business cooperation to this group of firms.

Virtually half the high-tech firms receive major improvements in profits/sales from their cooperative business arrangements. Market knowledge benefits are also a little above average. The proportion of firms benefiting via new overseas customers or suppliers, access to technology and product development are substantially above average. This indicates that a desire to innovate and keep one step ahead may be one of the major factors underpinning high-tech firms' business cooperation. An example of a firm working closely with its customers to develop its products is shown in Box 7.3.

Low-tech firms do quite well out of cooperation. Just on a third benefit through increased profits/sales. This result in itself is a good one and should not be overlooked. However, there is no disguising the fact that the proportions of firms benefiting for other reasons are below par. The tendency for low-tech firms to deal at arm's length seemingly makes it difficult for business cooperation strategies to gain a foothold.

Figure 7.6 Major benefits of cooperation, by technology content of firm's product



BI Low-tech 21
BI Med tech 28
BI High-tech 39
Source: BIE survey

Medium-tech firms, not surprisingly, fall somewhere in the middle. They start off quite well with a good proportion of firms acquiring benefits from market knowledge and increased profits/sales. The other leading benefits are for the most part around the average expected for any firm.

Overall, firms producing high-technology content products are doing very well out of business cooperation. The differences in benefit levels with the other two groups are high and widespread. The extent to which low-tech firms could actually do much better out of cooperation – for example with external assistance – is debatable given such a low Benefit Index (21). The role of external assistance is discussed in Chapter 13.

Box 7.3 Designing the product for the customer

Sastek was established in 1980 with a staff of two and began with a turnover of approximately $400,000. From its original base in Brisbane, Sastek has grown to a company trading $9 million in 1994 with a staff in excess of 70 people.

Today Sastek is internationally recognised as a leader in the field of data acquisition and information management systems for food processing industries such as abattoirs, fish and poultry processors and smallgoods manufacturers. Its systems are in daily use at over 150 locations in Australia and in such countries as New Zealand, UK and China.

The company's strong growth and product development since its inception has been achieved through the cooperation and involvement of Sastek customers in the development of its product range.

The company's role has changed in response to customer needs for off-floor software specially designed for the industry. While it continued to develop robust and functional hardware, Sastek, in consultation with its customers, developed a complete suite of software from livestock acquisition and costing through to sales processing, inventory and dispatch which provides the industry with a completely integrated IT system allowing users worldwide to cope with the complexities of today's information requirements.

Sastek has always recognised that a 'total customer focus' philosophy is essential to its continued success, and places a high value on customer feedback to its operations.

Source: BIE interview

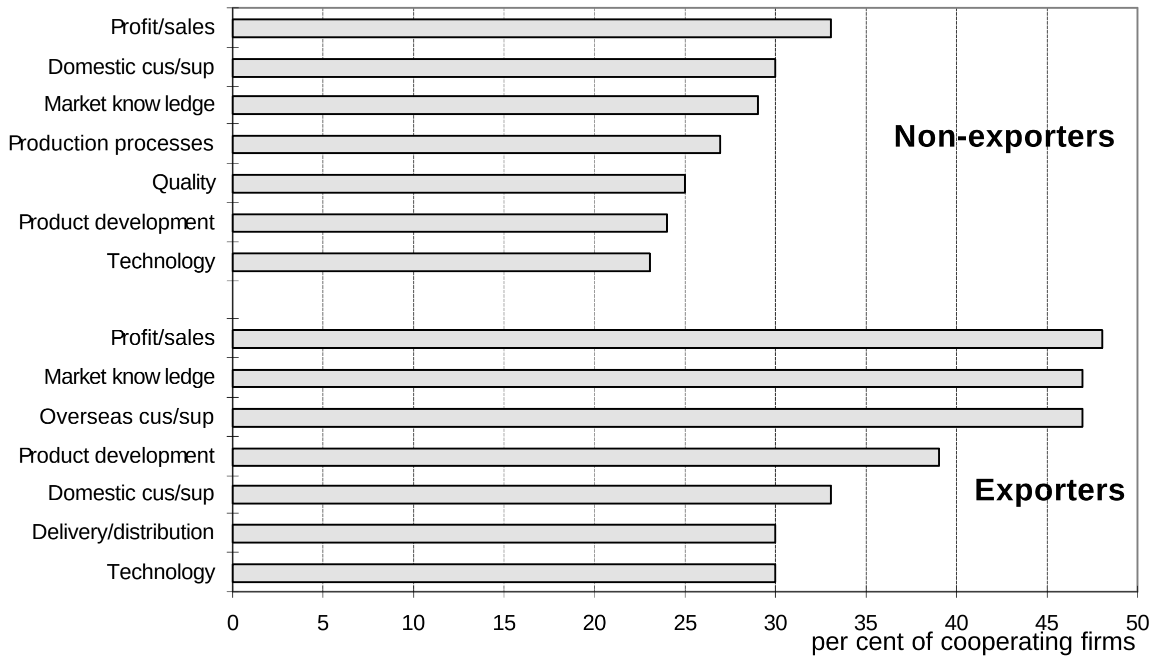
7.1.4 Exporters and non-exporters

Exporters are generally amongst the most efficient firms in their industries – they must be to stay competitive. They need more than lower costs (and prices) than market rivals. Exporters have to adapt with information and ideas. They have to know their markets and package their products according to customer demands. Tastes, technology and the nature of competing products are fickle. To survive exporters have to access knowledge as much as markets.

The benefits of business cooperation to firms focussed solely on domestic markets provide an interesting comparison both in terms of the things that matter and the extent of these benefits.

Figure 7.7 details the leading benefits of cooperation for exporters and non-exporters. The relatively greater importance of cooperation to exporters is immediately apparent. In fact, exporting firms obtained a higher "score" than domestic focused firms in all but one of the categories.

Figure 7.7 Major benefits of cooperation for exporters and non-exporters



BI Non-exporters 27
BI Exporters 39
Source: BIE survey

Exporters appear to be using business cooperation very effectively to assist their performance. This is achieved more through market-related benefits – new customers/suppliers – than efficiency ones, although the latter still rate as important. The extent to which exporters benefit is very high (BI of 39) and owes much to the proportion of firms benefiting from increased profits/sales, new overseas customers/suppliers and improved market knowledge. Close to 50 per cent of cooperating exporters are achieving major benefits in each of these three areas.

An above average proportion of exporters (39 per cent) are also using business cooperation as an aid to product development. In crude terms this means that approximately 40-50 per cent of exporters are utilising their linkages to become smarter (market knowledge) or better (product development). Both of these are likely to represent spin-offs to a significant degree. For example, an exporter might use a cooperative arrangement to help break into new markets. This in turn leads to acquiring new market intelligence and assists in developing new or better products. Product development, of course, will also sometimes be a major aim of business cooperation.

The appearance of improved delivery/distribution as a leading major benefit for exporters highlights the special ways that business cooperation can help particular firm types[4]. Distribution networks are often vital to the success of products, particularly when trying to gain a foothold in new markets. Linking up with a

4 It will be recalled that distribution also figured in the leading benefits of firms with overseas cooperative arrangements.

firm 'on the ground' and working together to get the best results can make an enormous difference to export sales. A close relationship with a distributor can also bring benefits in other areas (see Box 7.4).

Box 7.4 Cooperating for an export drive

Delta West is a large pharmaceutical company producing human injectibles. Its three major markets are cancer products, general products and respiratory medicine. Delta West exports around 50 per cent of its production.

Access to markets is critical to Delta West's export success and is provided through its parent Upjohn and strategic alliances.

Its most significant cooperative arrangement is with US firm, Gensia Inc. This arose when Delta West decided to undertake a major export drive and sought a US partner to distribute its products in North America. Delta West looks after the development and manufacture of the product, while Gensia is responsible for product registration, marketing and selling.

The arrangement with Gensia involves communication and feedback on how well Delta West's products are received and how distribution and production processes might be improved. It also enables Delta West to keep in touch with new opportunities arising in North America, both in terms of new markets and new alliance partners.

Source: BIE interview

For non-exporting firms the benefits of business cooperation are different and are certainly lower. Domestic-focused firms have more of a tendency for seeing cooperation as a means for improving production efficiencies, although many still benefit from new domestic customers/suppliers. There is no place for new overseas customers/suppliers or distribution in their leading benefits and these are replaced by improved production processes and improved quality (although it should be pointed out that exporting firms achieve similar levels of benefit for production processes and quality).

The impression left by this data is that domestic-focussed firms are not sufficiently grasping the opportunities created by business cooperation. The comparisons between exporters and non-exporters in the areas of profits, market knowledge and product development are especially revealing. These have been shown to be key benefits of business cooperation in general, but these data reveal the skewing of the general results which is caused by exporters. Take the exporters out of the picture and the probability of firms benefiting in these areas suddenly looks much less rosy.

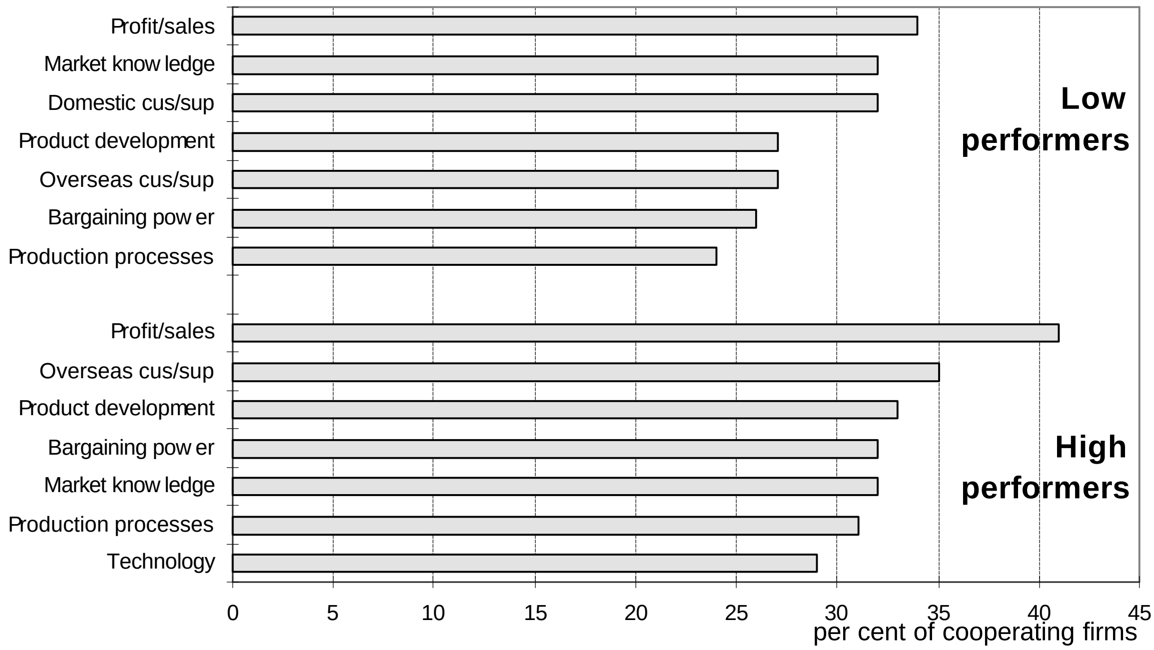
If non-exporters were to use business cooperation more productively it would not only enhance their individual prospects vis-a-vis other domestic producers, but might ultimately make the firms more competitive against imported products and/or lead to development of their own export potential.

7.1.5 High and low performing firms

Comparing the business cooperation benefits of firms which have experienced vastly differing turnover growth rates over recent years, can potentially provide some clues about the true extent of cooperation's benefits. For example, if firms experiencing negative growth overall can still point to improved sales/profits resulting from their cooperative arrangements this would say a lot about the effectiveness of cooperation as a business strategy.

One thing which cannot be determined with complete accuracy is the causal relationship between business cooperation and high or low turnover growth. Thus a high growth firm obtaining high cooperation benefits cannot be interpreted to mean that business cooperation is the main reason for the firm's strong increase in sales. In the following analysis, however, there are sufficient clues to explain the nature of the relationship between high/low performers and business cooperation benefits.

Figure 7.8 Major benefits of cooperation for high and low performing firms



BI Low performers 29
BI High performers 33
Source: BIE survey

The leading benefits of the high and low growth firms are shown in Figure 7.8. The high performing firms are benefiting more overall out of business cooperation than the low performers, but only by a relatively small margin. Interestingly, there are no especially large differences in the relative importance of particular benefits, but the high performers tend to do a little better in each case. The biggest difference in fact is only eight percentage points which occurs for new overseas customers/suppliers.

The extent of the benefits obtained by high performing firms is not very impressive in the wider context. The BI of 33 is about average and is well below the levels achieved by exporting firms (BI of 39) and large firms (BI of 40).

One obvious implication of this is that the high sales growth achieved by high performing firms cannot be directly attributed to their cooperative business arrangements. If cooperation was the major cause of high growth, then we would expect to see much higher benefits from links from high growth compared to low growth firms.

So what are the high performers looking for from business cooperation? They apparently do not need it to achieve their impressive short-term growth, but what do they need it for?

The benefits shown in Figure 7.8 suggest a possible link between new overseas customers/suppliers and increased bargaining power, both of which are assisting above average numbers of firms. Maybe there is a plausible innovation story to tell. Product development, improved production processes and access to technology all feature as leading benefits[5]. Moreover, the above average proportion of firms benefiting from new overseas customers/suppliers also raises the possibility of innovation linked to overseas connections.

A possible hypothesis then is that the high-performing firms view cooperative linkages as mechanisms to assist their medium to long term goals of staying ahead by innovating and being smarter than other firms. In addition, they are seeking to use business cooperation to strategically enhance their market position through greater bargaining power.

The low performing firms contain fairly traditional major benefits in their leading seven. The real story here is the fact that they benefit significantly from business cooperation at a time when overall firm performance is declining. Thus, over 40 per cent of firms experiencing negative growth increased their profits/sales through their cooperative arrangements. This would seem to be a very strong selling point for the merits of cooperation as a business strategy[6].

7.1.6 Product type

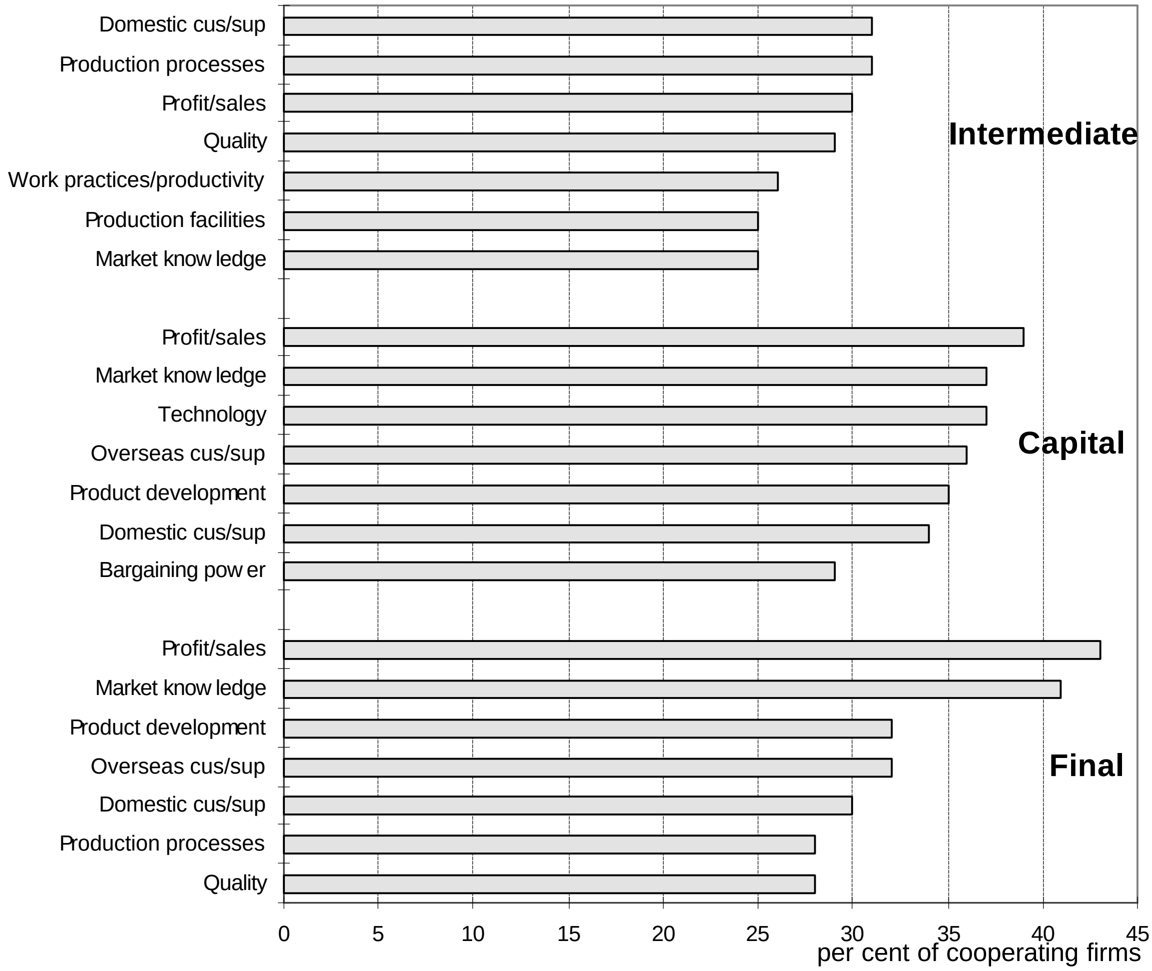
Almost 60 per cent of cooperating firms are final goods producers, 25 per cent are capital goods producers and 15 per cent make intermediate products. Is business cooperation relatively more important for any of these firm types? Do the benefits obtained by capital goods producers have much in common with those obtained by makers of final goods?

The major benefits obtained by firms in the three product groups are shown in Figure 7.9. In terms of overall benefits, firms producing intermediate goods are a little adrift of the other two groups – BI of 28 compared with 33 for final goods firms and 35 for capital goods producers.

5 Although the actual proportion of firms obtaining these benefits are not significantly different from other firm types.

6 The impact of cooperation on low performers' profits, sales and other performance measures is discussed further in Chapter 9.

Figure 7.9 Major benefits of cooperation, by firm's product type



BI Intermediate	28
BI Capital	35
BI Final	33

Source: BIE survey

It is unusual to see improved production processes as the most important benefit, but this occurs for firms producing intermediate products (along with new domestic customers/suppliers). These firms are able to increase the efficiency of their production runs by working closely with their linkage partners. By planning ahead with a major preferred customer, for example, a firm is able to accurately predict its target output and its required inputs. The certainty of demand allows for reduced inefficiencies in the production process.

The inclusion of improved works practices/productivity and access to production facilities in the top seven major benefits of intermediate goods producers is also unusual when compared to most other linkage types.

The clear conclusion is that these firms are using business cooperation to assist with the operational side of their business activities. Containing costs and improving operational efficiency seems much more important to them overall than market opportunities and demand.

There has to be a question mark on why more intermediate goods producers cannot obtain major benefits from cooperation. However, this might be difficult in view of the benefits of most interest to them.

Compared to the ‘average’ cooperating firm, intermediate goods producers are in fact more likely to benefit from improved work practices/productivity and access to production facilities.

The major benefits for final goods producers (which account for almost 60 per cent of all cooperating firms) are the same as for the ‘average’ firm, although there are some variations in rankings and scores. Both profits/sales and market knowledge are a little above average, leaving a large gap to the third most important benefit, new overseas customers/suppliers. The differences in the profits/sales and market knowledge benefits between final product and intermediate product firms is quite substantial, but again reflects differences in their fundamental reasons for forming linkages.

The third group, capital goods producers, are the most likely, on average, to benefit from business cooperation. A very consistent 34 per cent to 39 per cent of firms obtain the six leading benefits. Significantly, technology access is the second most important benefit and is 11 percentage points higher than the average for all firm types. The above average benefits which also occur for new overseas customers/suppliers suggests there may well be an overseas supplier-technology connection.

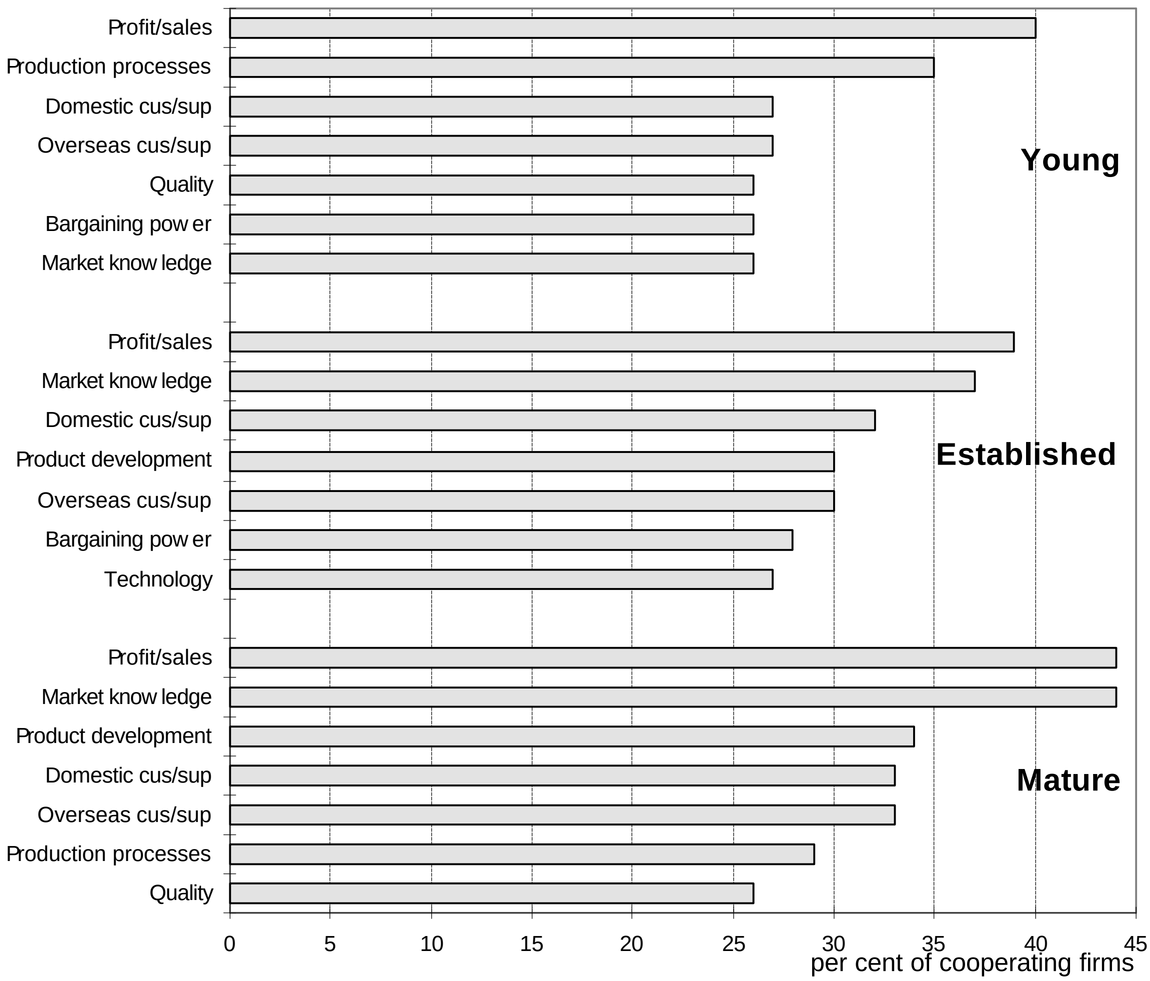
Cooperating capital goods producers are the most likely to benefit from product development. This appeals to common sense, given the critical importance and generally high value of these items. Capital goods, by definition, are usually elaborate and require careful design and production. Firms in the industry can benefit by working closely in developing new products with both their customers and suppliers.

7.1.7 Age of firm

Do the benefits of business cooperation differ according to the age of the firms involved?

Figure 7.10 reveals that mature firms are likely to benefit the most from cooperation and young firms the least. Established firms in the 6-24 age group, which account for the largest proportion of surveyed firms, sit close to the middle of the two extremes.

Figure 7.10 Major benefits of cooperation, by age of firm



BI Young 30
BI Established 32
BI Mature 35
Source: BIE survey

The oldest firms have the standard types in their leading benefits, with the top five 'scores' being slightly above average. However, only market knowledge is significantly different from the average. The benefits for the established firms contain nothing remarkable vis-a-vis other cooperating firms.

It would seem that young firms are less likely to regard their linkages as a means of accessing new customers and suppliers, or indeed as a means of improving the nature of their products. Market knowledge benefits are also unremarkable. However new firms are apparently using business cooperation to gather knowledge in other ways, as is shown by the 35 per cent which obtain major benefits from improved production processes.

This suggests that in their early years firms are more focussed on developing linkages to produce as efficiently as possible. Once they have established themselves and have entrenched their basic cost and price competitiveness, they then go on to use linkages to try and lift performance by learning more about their markets and by competing more on the basis of product characteristics.

None of the age groups have a particular bent towards using business cooperation to find new overseas customers and/or suppliers. Again, the older firms are the more likely to benefit in this way, but the differences with other aged firms are not particularly significant.

Does technology access vary with firms at different stages of their development? We found virtually no variation in benefit at all between firms in the three age groups.

7.1.8 Other firm characteristics

Two other firm characteristics were available for testing the significance of benefits. The first, *ownership*, could not be used because 80 per cent of respondent cooperating firms are Australian private companies, and the rest a combination of Australian public companies, unincorporated firms and foreign-owned companies and their subsidiaries. With such a large proportion of firms in one group and the remainder scattered around various groups, we had insufficient data to make valid comparisons.

We also looked at how benefits varied with the *level of competition*. Only small variations showed up. There was a slight tendency for firms in highly competitive markets to obtain bigger benefits than those in less competitive markets. But most firms said they worked in highly competitive environments – so the results are a bit rubbery. A better proxy for competition might be firms with a high costs constraint – this is considered in Section 7.4.

7.2 Competitive advantages

In Chapter 4, we compared competitive advantages for cooperating and non-cooperating firms to test whether any particular advantage increased the likelihood of business cooperation.

This section develops further the notion that competitive advantages help to explain why firms become involved in cooperative business arrangements and obtain differing benefits.

The relationship between a firm's competitive advantages and its benefits from cooperation could potentially work in either direction. On the one hand, a firm's competitive advantages may be considered as fairly stable and remain unaffected as a result of business cooperation. In this case, the cooperation benefits are in a sense driven by existing competitive advantages. Alternatively, situations could arise where specific cooperative arrangements *create* a firm's competitive advantages.

In the former case, it could be argued that firms are entering cooperative arrangements primarily to enhance or strengthen *existing* competitive advantages. For example, a high-tech firm with a competitive advantage in technology and ideas might form an arrangement to help increase its competitive edge in the area it does best and accordingly obtains significant technology benefits.

In the latter case firms identify gaps or weaknesses in their competitive advantages. They then engage in business cooperation to obtain benefits to help plug those gaps. For example, a highly innovative firm might cooperate to help overcome a weakness in marketing its products. In time, this may give the firm a competitive advantage in marketing.

Face-to-face interviews with firms suggested that firms mainly have stable competitive advantages and that competitive advantages are generally not created as a result of business cooperation. In none of the 40 firms interviewed has a cooperative business arrangement actually created a new enduring competitive advantage for the firm. On the contrary, the clear message from firms is that they know where their strengths are. They use cooperative arrangements to help them get better or stay ahead in those areas.

7.2.1 Leading competitive advantages

The two most common competitive advantages of cooperating firms are product quality and flexibility in meeting customer needs, with 61 per cent and 52 per cent of cooperating firms respectively including these two in their top three competitive advantages. The next two most important competitive advantages for cooperating firms are workforce skills (32 per cent) and prestigious brand/good reputation (30 per cent). The remainder range from marketing (8 per cent of cooperating firms) to technology (20 per cent).

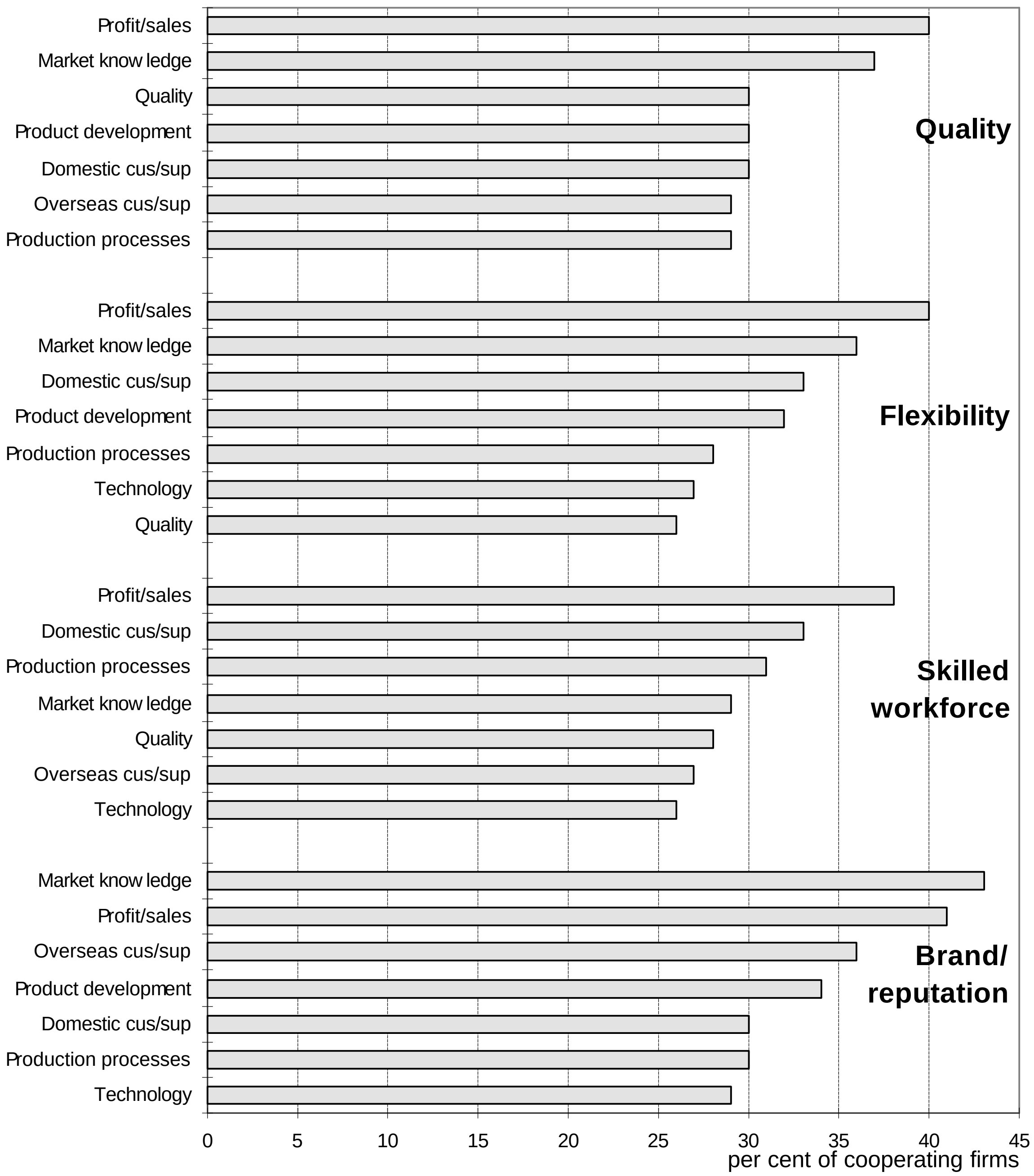
The major benefits associated with the four most common competitive advantages tend to reflect the benefit types associated with the average firm, which is to be expected in view of the relatively large number of firms which possess one or more of these advantages (Figure 7.11).

Both product quality and meeting customer needs are fairly standard in terms of leading benefits and their BIs (32 per cent being the same as the average firm). However, both firm types are noteworthy in some respects.

For the product quality firms, improved quality ranks a little higher than usual, suggesting that firms with a perceived product quality advantage can still obtain important quality benefits from their participation in business cooperation.

More significant perhaps is the absence of new overseas customer/suppliers as a leading cooperation benefit for the latter group of firms. These firms, which apparently place a great emphasis on meeting the demands of their customers, are no more likely than the average firm to use their cooperative arrangements to gain new customers (or suppliers) overseas.

Figure 7.11 Major benefits of cooperation for firms with the leading four competitive advantages



BI Quality	32
BI Flexibility	32
BI Skilled workforce	30
BI Brand/reputation	35

Source: BIE survey

Developing new overseas customers or suppliers is important to firms claiming to have a competitive advantage due to a prestigious brand name or good reputation; over one-third of these firms benefit in this way from business cooperation. A possible common scenario in this case might be one of firms which have built up a good name in the domestic market turning to overseas distributors to help them forge new export markets.

Firms relying significantly on their reputation for their competitive edge are also noticeable for obtaining above average benefits in product development. This is not by as much as might have been expected given the importance these firms attach to the characteristics of their products. On the other hand, this group of cooperating firms tended to obtain large benefits from increased market knowledge – the intelligence on rival brands and feedback on their own products might be alternative ways of improving their products. Box 7.5 provides an example of a firm obtaining an opportunity for cooperation through its good reputation.

Box 7.5 Good reputation attracts cooperation

Machine Technology produces a range of low-technology goods including metal components and tooling and has a turnover of around $1 million solely from domestic operations.

In an intensely competitive market Machine Technology's good reputation resulted in their being contracted as a preferred supplier of a major telecommunications company. This position allows them to provide inputs of high and improving quality, as well as fast delivery, at a highly competitive price.

This formal arrangement has given Machine Technology many advantages. As the number of preferred suppliers is restricted they are provided with a feeling of security. This has driven a willingness to try new things and prepare for orders that are expected to be placed.

Source: BIE interview

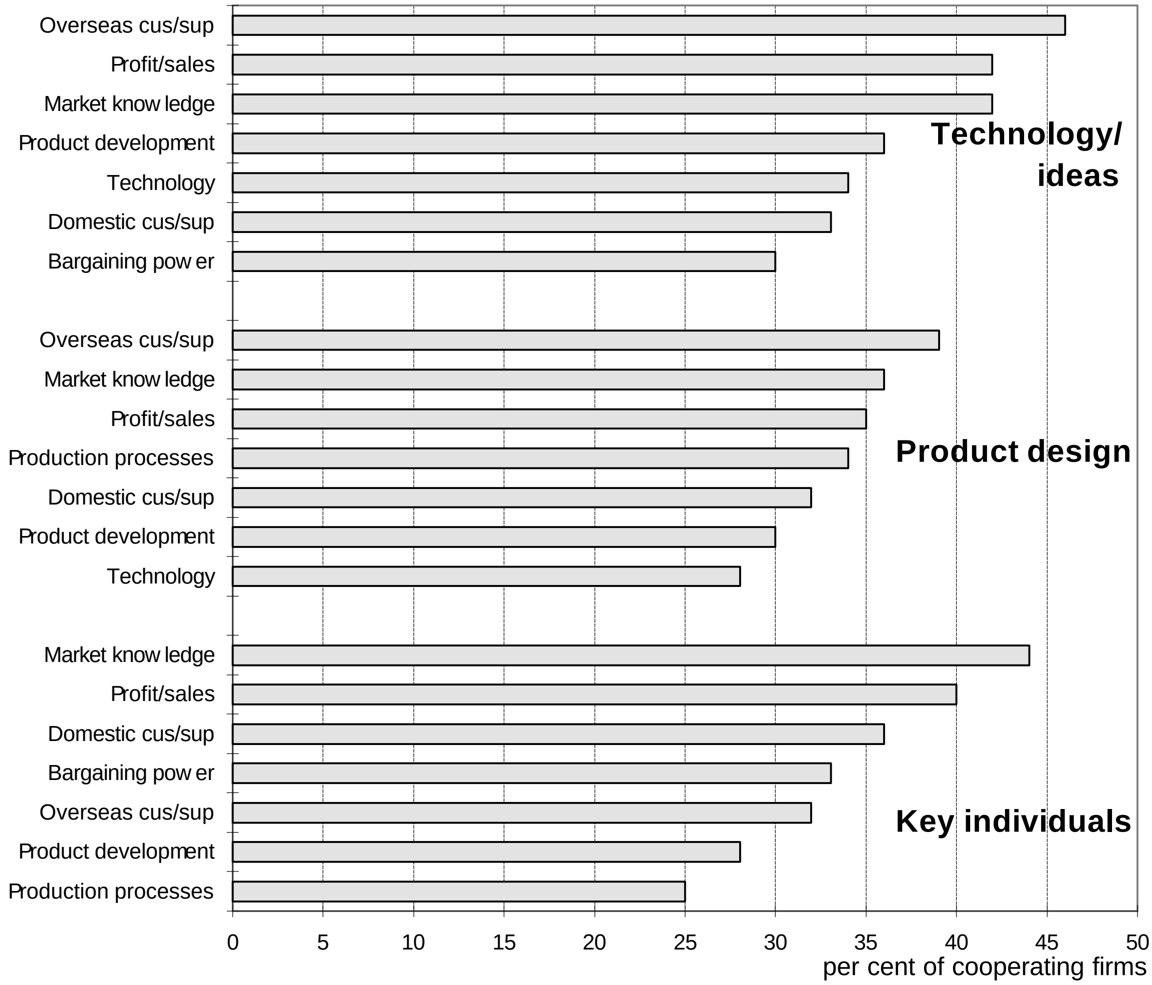
7.2.2 Tendency to cooperate and competitive advantages

In Chapter 4 we found that firms involved in cooperative business arrangements are more likely to have competitive advantages in three major areas; namely, technology/good ideas, product design and key individuals[7]. The benefits from cooperation for firms listing these factors as major competitive advantages are shown in Figure 7.12.

Both technology/ideas and product design imply a strong reliance on innovation as a means of keeping firms ahead in the competitiveness stakes. Firms listing these factors as their competitive advantages are basically saying that they are looking to new technology, new ideas and new or improved products to give them an edge over their competitors.

7 "Cooperative arrangements in which your firm is involved" was also found to be significant, but as only 20 cooperating firms listed this as a major competitive advantage it was not possible to examine the associated benefits.

Figure 7.12 Major benefits of cooperation associated with the competitive advantages of firms with the greatest tendency to cooperate



BI Technology/ideas 38
BI Product design 33
BI Key individuals 34
Source: BIE survey

In this regard it is notable that firms with technology/ideas and product design as their major competitive advantages are placing a strong reliance on business cooperation to find new overseas markets or new overseas suppliers. New overseas customers/suppliers is the most important cooperation benefit for both these firm types. Benefits from technology access and product development are also relatively high in firms with technology as a competitive advantage.

One implication would seem to be that these firms are entering cooperative business arrangements to fortify and further enhance their positions as innovators and are looking to business cooperation to develop their overseas markets and/or form strategic alliances with suppliers. In a few cases it is possible that the direction of causation may flow the other way. For example, firms which are licensing technology from an overseas firm as part of a cooperative arrangement may have created their technological advantage. Overall, the 20 per cent of cooperating firms competing on the basis of technology/ideas are apparently significant beneficiaries of business cooperation (BI of 38).

The 'product design' firms are fairly average cooperation beneficiaries overall (BI of 33) and present mixed signals on whether cooperation is being used to strengthen their competitive advantage. The relatively high proportion of firms benefiting from improved production processes suggests that working more closely with customers on design aspects may be paying dividends in the overall scheme of production planning and operations. At the same time, the score for benefits from product development is only average. This may indicate that these firms are not especially interested in forming cooperative arrangements to find *ideas* to assist in maintaining or improving their key competitive advantage.

Firms which derive a major competitive advantage by having important, or key, individuals are likely to benefit most from cooperation by acquiring market knowledge[8].

7.3 Performance constraints

In looking at the effects of business cooperation it is interesting to see if there are any apparent relationships between benefits and specific performance constraints of different firms. Are firms able to directly address through cooperation the factors inhibiting their prospects, or do they use cooperative arrangements more generally to try and lift overall performance?

All but one (inadequate marketing skills) of the eight performance constraints listed on the survey form have equivalent categories under the cooperation benefits section of the survey. Accordingly, it is possible to observe how the results of cooperation match up against the perceived inhibiting factors[9].

7.3.1 The key performance constraints

The four most important performance constraints for cooperating firms, as identified in Chapter 4, are high costs, access to finance, a lack of domestic markets and labour skills. The major benefits associated with the firms nominating these constraints are shown in Figure 7.13.

Firms with high costs as a performance constraint can be reasonably expected to be operating in highly competitive markets. So how does business cooperation assist these firms? The benefits for firms with high costs are in fact fairly unremarkable, save for a slightly higher than average rating for improved production processes. If these firms were becoming involved in cooperative arrangements to gain a competitive edge by *specifically* addressing operational efficiency issues, they might be expected to have above average proportions benefiting from both improved production processes and improved productivity/work practices. However, this is not the case and it seems that firms with cost constraints benefit from cooperation in much the same way as the average firm.

Access to finance is interesting because it is the only constraint that is significantly more likely in cooperating firms vis-a-vis non-cooperating firms. The lack of funds to expand, to tap into new markets and

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8 This person (or persons) might be the owner/manager, a manager of a key division of the firm or even a chief researcher or scientist.

9 There might be a difficulty in this approach in cases where cooperative arrangements have been formed to overcome problems which, as a result, are no longer constraints on firm performance. This, however, is unlikely to be common.

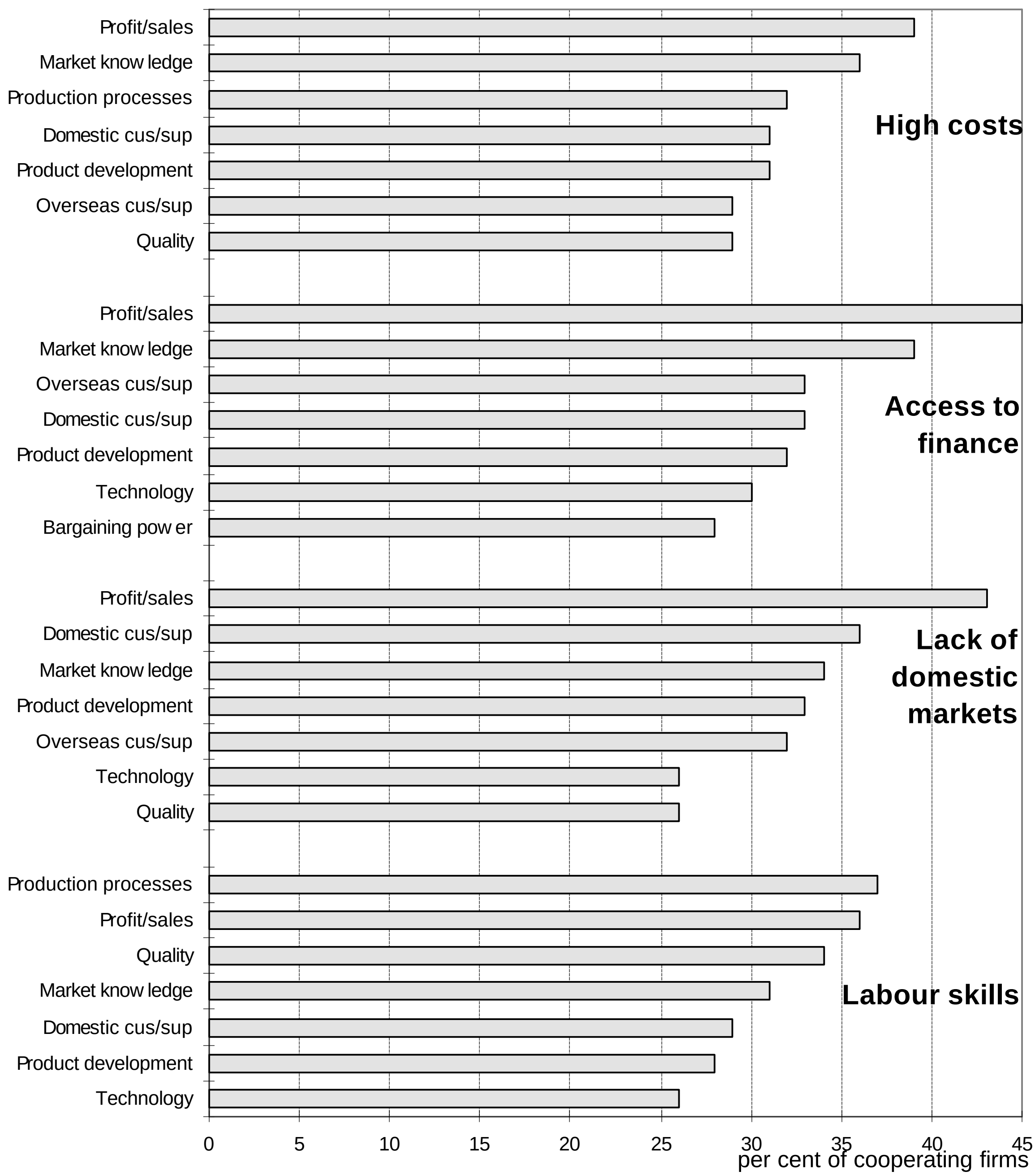
even to innovate are apparently being overcome somewhat through entering cooperative arrangements with other firms. At least one-third of these firms are benefiting from new customers/suppliers at home and abroad and approaching one-half are increasing their turnover/profits. Product development also benefits around one-third of the firms.

Interestingly, money-strapped firms are clearly *not* benefiting directly by accessing finance through their cooperative arrangements. Only 14 per cent of firms received major benefits from access to financial resources as a result of cooperation, which is only slightly above what might be expected from the average firm.

Firms constrained by lack of domestic markets are to some extent addressing this problem through their business cooperation activities. Around 36 per cent of these firms are finding new customers (and/or suppliers) in local markets as a consequence of cooperation. This benefit is second only to increased profits/sales (43 per cent). The proportion of firms receiving other benefits are around average firm levels.

The group of firms facing a shortage of labour skills are also apparently confronting aspects of this problem by cooperating with other firms. It seems that an above average proportion of these firms are trying to mitigate skilled labour problems by working closely with other firms to improve their production processes. This could involve a number of activities such as shared production activities.

Figure 7.13 Major benefits of cooperation for firms with the four most important performance constraints



BI High costs	32
BI Access to finance	34
BI Lack of domestic markets	33
BI Labour skills	32

Source: BIE survey

7.4 Summary

All firm types, whether large or small, high or low-tech, young or old, can benefit from business cooperation. There is nothing in the data to suggest that firms with certain characteristics are unsuitable for cooperation. The interesting questions relate to the type of firms *most* likely to benefit overall and the degree to which specific kinds of benefit vary between firms.

A key finding is the strong relationship between firms with the greatest tendency to form cooperative arrangements (see Chapter 4) and the firms most likely to benefit from their cooperative activities. Thus, large firms, high-tech firms and exporting firms benefit the most, and IT&T and Scientific and medical firms do the best on an industry basis. The results of modelling confirm that firms with a high reliance on exports have a relatively higher likelihood of benefiting from their cooperative linkages.

What might explain this relationship between the tendency to cooperate and benefits? It seems likely to be due to a combination of intensity and commitment. Firms which tend to cooperate the most are likely to have a greater number of cooperative arrangements in operation, and therefore a greater chance of obtaining benefits (and a wider spread of benefits). These firms are also more likely to see forming linkages as a strategic management tool and an important part of conducting business. They will devote considerable time and resources to cooperative activities. Accordingly they have a greater commitment and desire to achieve the best outcomes.

All this is not to say, of course, that other firm types do poorly out of business cooperation — they are just *less* likely to succeed. Thus the differences between the two groups of firms, while significant, should not be exaggerated.

The results presented in this chapter indicate that the firms most likely to benefit from cooperation, tend to do so more through market-related activities than operational procedures. For these firms, in fact, the leading four benefits are the same — increased profits/sales, market knowledge, new overseas customers and suppliers and product development. This can be encapsulated by saying that the type of firms most likely to benefit from cooperation do so through an overseas focus and through better and improved products.

For the other firms, a majority still rate increased profits/sales, market knowledge and new domestic or overseas customers/suppliers in the top three benefits. But some apparently place a greater emphasis on the efficiency-improving aspects of business cooperation. Improved production processes, for example, are leading benefits for Clothing and footwear firms, young firms and for firms producing intermediate products.

Clothing and footwear firms rate improved production processes as their most important cooperation benefit and also have other operational benefits — improved quality and improved work practices/productivity — as leading benefits. Young firms are apparently more focused on forming linkages to assist with operational procedures — to be competitive by producing as efficiently as possible. Once they are established and have entrenched cost and price competitiveness they are then more likely to use linkages to learn more about their markets and to assist with innovation.

Firms are apparently forming cooperative arrangements to build on their competitive advantages. The clear message is that they know where their strengths lie and are using cooperative arrangements to help them get better or stay ahead in these areas. There is also some evidence that firms are using business cooperation to address specific constraints on the their overall performance, such as lack of markets and technology requirements.

In the previous chapter we raised the issue of some benefits of cooperation being anticipated and others being unexpected spin-offs. The extent to which the benefits accruing to different firm types are anticipated is difficult to measure. However, the face-to-face interviews indicate that just about all firms receive spin-off benefits from their cooperative arrangements. Improved production processes, market knowledge, product development and improved quality are the most significant of these.