SMEs in Northern Ireland:
a matched sample comparison with Great Britain

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SMEs in Northern Ireland

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0 Executive Summary

1. Overview

1.1 This report is based on a survey of SMEs in Northern Ireland carried out by the Centre for Business Research at Cambridge University on behalf of Invest NI. The sampling frame totalled 4,751 firms. A response rate of one-fifth was achieved, yielding an achieved sample of 853 firms. This report supplements an earlier report, CBR SME Benchmarking Survey for Northern Ireland. The appendices to the earlier report describe: the survey process; the instrument used; and the item response rate by variable.

1.2 This report compares the results of this survey with two other surveys of British small and medium-sized enterprises (SMEs) carried out by the Centre for Business Research. In all of these surveys a size stratified sample design was followed. Where comparisons are provided they use the size classifications adopted in both these studies, where micro denotes an independent firm employing between 0 and 9 employees, small denotes a firm employing between 10-99 employees, and medium denotes a firm employing between 100 and 499 employees.

1.3 This report supplements the previous report, CBR SME Benchmarking Survey for Northern Ireland, which compared the characteristics of the NI sample with a sample of SMEs from the rest of the United Kingdom who responded to the CBR 2002 survey. The present report differs in two ways. First, it draws its comparisons wherever possible with the new CBR survey of GB SMEs, referred to here as GB 2004. Second, it allows for a comparison of firms in Northern Ireland with those in Great Britain by forming comparison samples matched by size and sector.

2. The Sample and its Size, Sector and Age Characteristics

2.1 The matched NI sample consists of 795 independent business employing less than 500 employees in 2004. Of these businesses 55% are in manufacturing and 45% in business services. Of the manufacturing businesses 44% employ less than 10 people, and around 5% employ between 100 and 499 staff, with the remainder falling into the 10-99 category. In services 72% employ less than 10 people, 27% employ between 10 and 99 staff and only 1% employ more than 100. Over 50% of the sample businesses were formed in or after 1990.

3. Business Growth

3.1 In the period 2001-2004 around 49% of the sample experienced no employee growth or decline, whilst 19% grew by over 50% in these terms. This growth distribution exhibits more growth than the matched GB 2004 sample. For example, the percentage of fastest growers is substantially higher in the NI sample.

4. Exports

4.1 In 2004 56% of the NI sample firms exported, compared to 52% in 2001, whilst the exports to sales ratio of those firms was 22% in both years. Firms, which were formed after 1990, were in manufacturing, or were innovators, or had fast to medium growth were more likely to export and have higher export to sales ratios.

4.2 In comparison with GB sample firms the NI sample of micro firms is more likely to export, and the export to sales ratio is higher across all size classes.

5. Business Foundation and Leadership

5.1 Over 71% of the NI sample of manufacturing firms and 67% of the business service firms are new start-ups. Spin-offs from an existing business are the next most frequent form of foundation at 17% and 19% respectively. Spin-offs are more common amongst the firms founded since 1990. This pattern is similar to that in GB.

5.2 The dominant motive in founding a firm in the sample is the desire to run your own business, which was cited by 70% of respondents. This is the same as in GB. Business formation as a response to the threat of unemployment, at 15%, was somewhat lower than the GB figure of 21%.

5.3 The average business leader in NI firms is in his or her later forties, has spent 13 years with the business and 10 as CEO. Each of these is somewhat less than in GB.

5.4 Around 9% of business leaders are female and they are more frequently to be found in services, slower growing, and newer firms.

6. Planning and e-business Involvement

6.1 About forty per cent of the NI sample does not have monthly management accounts. Moreover only 15% have a human resources plan and only half have a business plan. This low degree of planning is more marked for services, stable and declining and non-innovating firms. Around 60% of all firms have a web information site and about 20% have a web site for trading.

6.2.1 After allowing for size and sector, the NI sample firms are found to be more likely to engage in business planning than the rest of the UK, but less likely to have monthly management accounts. The use of the web for information and trading appears to be lower than for GB. Invest NI client firms are more engaged with planning.

7. Growth Targets and Constraints on Meeting Business Objectives

7.1 Around one fifth of the NI sample is not seeking to grow, and about 20% expect to grow substantially. These are broadly similar, but slightly more ambitious, than those found for the GB sample.

7.2 Fast growth firms and innovators are more likely to have higher growth ambitions in both NI and GB.

7.3 Larger SMEs are more ambitious in their growth plans. NI sample firms are found to be more ambitious than their GB counterparts in each size group.

7.4 Access to finance is the most commonly reported very significant, or crucial, constraint facing NI sample firms. Newer firms and innovators are more concerned about access to finance, availability of premises and marketing skills than their older, or non-innovating counterparts. Innovators are also more concerned about access to overseas markets, whilst newer firms have greater problems with increasing competition. Access to skilled labour, marketing and management skill shortages, and access to finance appear as more significant constraints for faster growing than for slower growing firms. Fast growing firms also identify access to overseas markets, availability of premises and the acquisition of technology as more significant constraints than do other firms.

7.5 Finance constraints and access to overseas markets are higher for NI sample firms than for GB sample firms, but marketing skills, market demand growth and increasing competition are higher for micro and small GB firms.

8. Competition and Collaboration

8.1 Approximately a third of the firms in the NI sample relied on one customer for 10% or less of their sales, about the same as found in the rest of the UK. Newer firms have greater dependence on fewer customers.

8.2 In the NI sample 38% of micro firms depend on their top customer to provide at least a quarter of their business; and this compares with 36% for small firms and 32% for medium-sized firms.

8.3 In NI 41% of the firms consider that local markets are their most important area of business compared to 32% that have the rest of Northern Ireland as their largest market. 13% take the rest of the UK, 9.0% the Republic of Ireland and 5.0% have other international markets as their largest market. Manufacturing and fast growth firms have less dependence on local markets and do more trade with the rest of the UK and the Irish Republic. Newer and innovative firms also have less dependence on local markets.

8.4 In the NI sample 80 % of firms had fewer than 10 serious competitors compared with 77% for the matched GB sample; but 9% of the NI sample firms believe that they have no serious competitors, compared with 18% for the rest of the UK.

8.5 The lack of apparent competition is greater, and statistically significant, for smaller firms; 81% of micro and small firms had less than 10 serious competitors but only 68% of medium-sized firms. Furthermore, 14% of micro firms believed that they had no serious competition compared to 4% of small firms and 0% of medium-sized firms. This pattern is similar to that observed in the GB sample.

9. The Sources of Competitive Advantage

9.1 Personal attention and responsiveness to client needs, product quality and established reputation are the highest rated sources of competitive advantage in NI sample firms. Those factors that had a low overall low rating include cost advantage, price and marketing – which is consistent with the evidence presented above that lack of marketing skills has been a significant factor that has constrained the growth of many firms in the survey.

9.2 Manufacturing firms in the NI sample give higher scores to all factors, particularly for product design, quality, cost, price and speed of service. Micro firms particularly give low scores for price and for marketing skills as sources of competitive advantage. They also give lower scores for established reputation and, surprisingly, speed of service – a finding not evident in the GB survey.

9.3 Older firms in the NI sample stress reputation, whilst newer firms identify design, flair and specialisms as their competitive edge. The better the growth performance of the firm, the more likely it will stress the importance of quality and design, specialisms and expertise, and marketing. Innovating firms score product design, quality, flair and creativity, and specialised expertise more highly than non-innovating firms. Overall, innovating firms in the NI sample stress the importance of higher-order qualitative factors which require investment in skills and technical capabilities.

10. Collaboration and Cooperation

10.1 In the NI sample 38% of firms had entered into collaborative or partnership arrangements with other organisations. Collaborative arrangements were more widely used in the service sector (47%) than in manufacturing (31%), reflecting the importance of networking in the business services sector. These figures are very similar to those found in the GB survey sample.

10.2 In the NI sample 35% of micro firms enter collaborative agreements compared with 40% of small firms and 62% of larger firms. These figures are also similar to those found in previous CBR surveys for GB. Faster growing firms were more likely to enter into collaborative agreements - 45% of fast growth firms had entered into such agreements compared to 35% for the other growth groups to improve business performance and growth. One of the greatest contrasts is between innovating and non-innovating firms - 45% of the former entered into partnership arrangements compared with only 29% of the latter. This is consistent with

previous CBR surveys for GB which have shown that collaboration is associated with greater innovation and higher rates of firm growth.

10.3 In the NI sample in general, the larger the firm the more likely it will have collaborated with their suppliers, their customers and higher educational institutes.

10.4 The five most important reasons for collaborative arrangements in the NI sample were to help expand the range of expertise and products (73%), to assist in the development of specialist services and products required by customers (64%), to improve financial market credibility (50%), to help keep current customers (45%) and to provide access to UK markets (39%). These are very similar to the reasons given by firms in the GB survey sample.

11. The Labour Force

11.1 For all NI sample firms, 10% were technologists and higher professionals and 11% were managers. This is broadly similar to the rest of the UK.

11.2.1 Service firms and newer firms have a higher proportion of technologists and higher professionals.

11.3 Micro firms have larger proportions of technologists and higher professionals and managers. These differences are very similar to the findings for the GB sample.

11.4 More than half of all the firms reported difficulties in recruiting for one or other of the skill categories they employed – a remarkably similar figure to the GB 2002 sample. Overall, the highest rates of recruitment difficulties are for skilled manual workers (53%), followed by technologists and higher professionals (44%) and technicians and lower professionals (36%). A surprisingly high proportion (35%) found it difficult to recruit semi-skilled and unskilled manual workers.

11.5 Recruitment difficulties increased with the firm size - 70% of the medium sized firms had recruitment difficulties compared to 43% of the micro firms. Micro and small NI sample firms had somewhat higher recruiting difficulties than their GB 2002 counterparts, particularly in the case of semi-skilled and unskilled manual workers and for technologists and higher professionals.

11.6 Almost 53% of the NI sample firms provide formal training. The number of firms providing training rises with firm size, from 39% of micro firms to 91% of medium sized firms, and these are identical to the percentages found for the rest of the UK in the GB 2002 sample. A higher proportion of innovators and older firms also train and more medium growth than fast growth firms train.

11.7 Overall, 32% of the businesses use job rotation and multi-skilling, 30% use quality management (ie either quality circles or TQM) and 28% have performance related pay. Their use is more prevalent in manufacturing than services. Innovators also took a lead over non-innovators in developing human resource management practices that give them functional flexibility.

11.8 There is a marked rise in the use of each of these HRM practices with firm size in both the NI and the GB matched samples. Their use is more prevalent amongst micro and medium-sized firms in GB 2004 compared with their NI equivalents.

12. Innovation Activity

12.1 Over half of the sample report having introduced a product, or process innovation in the past three years. This is somewhat lower than the proportion in the GB matched sample – 54% compared with 62%. The proportion of innovating firms is higher amongst manufacturing, newer and fast growing firms.

12.2 Groups with relatively high innovation outputs in the past have relatively high proportions of firms intending to innovate in the future. NI micro and small firms are more optimistic relative to the past than their GB counterparts.

12.3 There is a significantly positive association between product innovation and size in both the NI sample and the GB sample.

12.4 In the NI sample around 10% of sales are new products or services; and this figure rises to over 19% if we include both new and significantly improved products and services. Fast growth is positively associated with the innovation content of the products. Medium-sized firms and newer firms both have a markedly higher proportion of their sales due to new, or improved products.

12.5.1 In the NI sample only 28% of the sample reports some R&D activity in the previous year compared with 40% for the GB 2002 sample, but after matching for size and sector, the GB 2004 sample also has 28% with some R&D activity.

12.6 In both the NI and GB samples the proportions with R&D activity are significantly higher in manufacturing, newer, fast growth and innovative firms.

12.7 A similar pattern emerges for the proportion of firms with staff engaged in R&D and the proportions of both full-time and any R&D staff are significantly higher in manufacturing, newer, fast growth and innovative firms.

12.8 NI sample firms score all sources of external information for their innovative activity as more important than do the GB 2002 firms.

12.9 Information from within the firm is the most important (58%), but in the NI sample, it is followed closely by clients, or customers (50%) and by suppliers (39%). The equivalent proportions for the GB 2002 sample are 65%, 36%, and 29%.

12.10 In general in the NI sample, as in the samples for the rest of the UK, micro firms are least likely to use external sources.

12.11 Lack of appropriate sources of finance, innovation costs being too high, and pay-off period being too long are the most frequently cited barriers to innovation in the NI sample. Amongst factors internal to the firm lack of innovation capacity and skilled personnel are most significant. This pattern is common across the EU. The most notable difference between GB and NI is the higher proportion of firms citing finance and costs as the source of their difficulties amongst NI firms. For example 43% of the NI sample give lack of finance as a constraint on innovation is much higher than the 27% given by the GB 2002 sample.

12.12 Innovators in the NI sample consistently identify more frequently than do non-innovators the 'economic' group of factors (particularly innovation costs and finance) as barriers. Non-innovators are more likely to be concerned about the firm's lack of innovation potential, the lack of need to innovate due to past innovations (i.e. more than three years earlier) and organisational rigidities as barriers to innovation.

12.13 Taken as a whole the results suggest a lack of appropriate finance as a particular barrier in high-tech services in NI. They also point to difficulties in the NI sample in the level of costs and their management, and the timing of innovation and its payback period as problems for high-tech manufacturing.

13. Government Business Support

13.1 The use of the various business support schemes from Invest NI ranges from: 25% for development/growth; 16% for training; 16% for technology and E-business; 14% for trade development; 12% for start-up; to 12% for R&D support. The next most common schemes are ENI support at 5% and EU funding schemes at 4% of NI sample firms.

13.2 Manufacturing firms in the NI sample are significantly more likely to have received all forms of Invest NI support, whilst business service firms are more likely to have taken up the DTI Small Firms Loan Guarantee Scheme (SFLGS). Newer firms are also more likely to have used Invest NI, particularly in relation to start-up, development/growth, training and trade development support. Newer firms are also significantly more likely to have used ENI support and the DTI's SFLGS. Innovators have used all forms of advice and support more than non-innovators, generally the difference is large and statistically significant.

13.3 Growing businesses, and particularly fast growth firms, are more likely to have used support from the various schemes and agencies.

13.4 Satisfaction levels with government schemes are generally very high with 76% to 93% saying that they are satisfied, or very satisfied. The satisfied proportions are higher than the CBR has found for similar GB surveys.

14. Profitability and Finance

14.1 Median profit margins on sales in the NI sample in 2004 were 8.5% for manufacturing and 25% for business services, and 12.5% for the sample as a whole. This is higher than the figures for the GB sample of 10.5% in 1999, 9.4% in GB 2002 and 9.2% in 2004.

14.2 Profit margins are significantly higher for micro and service sector firms; and these findings match those of our GB surveys. Innovators in the NI sample are significantly less profitable than non-innovators and this has been found in all the previous CBR surveys for GB samples.

14.3 The greater profitability of NI sample firms overall is not only due to both the higher profitability of the small NI sample firms and the greater preponderance of service sector firms in the NI sample, but may also reflect the lower level of competition.

14.4 About 39% of the NI sample sought external finance in the period 2002-04, virtually the same as that found for the sample in both the 1999 and 2002 GB surveys, but somewhat higher than the GB 2004 matched sample. The figure shows that manufacturing firms are more likely to seek external finance. The proportion seeking external finance is significantly greater for innovators, for less profitable firms, for newer firms and for larger firms. The need for external finance is also significantly related to growth, with the zero or negative growth firms seeking new external finance much less often. Each of these findings was also found to be the case for the previous GB surveys.

14.5 A greater proportion of less profitable NI sample firms need to seek external finance.

14.6 The dominant reason for not seeking finance in the NI sample is that internal cash flows were sufficient. This was given as a reason by 70% of the micro firms rising to 100% of the medium-sized firms. The borrowing risk being too great influenced 51% of micro firms, but only 20% of medium-sized firms, not to seek external finance. The fear of equity dilution also falls with firm size.

14.7 The average percentage of finance obtained was 80% in the NI sample which is somewhat below the 84% success obtained by firms in our matched GB 2004 sample. Older firms, bigger firms, more profitable firms and non-innovators (compared to innovators) are more successful in obtaining the funds they seek in the NI sample.

14.8 In the NI sample 84% of those seeking finance approached their bank. The only other source approached by about half the sample was HP/leasing businesses (46%). Working shareholders or partners were also approached fairly frequently in 2002-04, by 20% of those who sought external finance. Each other source was approached by less than 10% of these firms. These figures are very close to those found for the GB sample in 2002.

14.9 The failure rate in obtaining finance is greatest for approaches to venture capitalists in both NI and GB samples.

14.10 The lowest failure rate is seeking finance is found for applications to HP and leasing firms (3%) and this is also the case in the GB sample. The failure rates for banks (13%) and factoring (17%) are greater in the NI survey than those found for the rest of the UK. Unlike what was found in the GB survey, partners and existing shareholders (7%) and other private individuals (10%) are less likely to refuse a loan request compared with an equity participation. The failure rates for these types of finance are lower in the NI sample than rest of UK.

14.11 In the NI sample as in GB samples micro firms are more likely to use the banks and continue to have the highest failure rate in seeking bank finance. In general in the NI sample the micro firms suffer a higher failure rate with most sources, with venture capitalists most likely to turn them down. This is consistent both with a higher risk profile for such firms and with a lower level of cost effectively obtainable information about them.

14.12 In terms of the amount of finance sought which was actually raised we found that NI sample manufacturing firms are more likely to obtain support from banks, HP/leasing and factoring businesses, but significantly less likely to draw upon partners/working shareholders. Older firms are significantly more likely to draw upon factoring and HP/leasing finance, whilst newer firms gain support from trade customers, shareholders and private individuals significantly more frequently. Innovators also draw more from partners, shareholders and private individuals. Less profitable firms are more likely to use factoring and HP/leasing finance.

14.13 In terms of the breakdown of finance obtained by source in the NI sample we find that manufacturing firms continue to use a higher proportion of HP/leasing finance and a lower proportion of bank finance than service firms; and they draw less on all equity sources. Less profitable firms draw much less on banks and, as a consequence, draw upon a wider range of other sources of finance in comparison with profitable firms. In particular less profitable sample firms use significantly more of HP/leasing and factoring. This is also the case for older firms. Non-innovators have a very heavy reliance on the banks and draw significantly less from HP/leasing and invoice finance. Innovators get more of their finance from venture capital and from individuals.

14.14 Bank finance is the most frequently used source of finance in both the NI and GB survey samples. It is used by over two thirds of firms in all size categories in both NI and GB. HP/leasing and factoring are used as sources of finance significantly more frequently by the larger firms. New equity finance is used more frequently by medium-sized firms.

14.15 Micro and small NI firms received higher proportions of their finance from banks than their matched GB counterparts. In the GB sample bank finance appears to fall in importance with firm size just as HP/leasing and invoice finance rise importance. In the NI sample the same pattern extends in going from micro to small, but then reverses when moving into the medium sized group.

1 The Northern Ireland SME Survey – Business Characteristics

This report is based on a survey of SMEs in Northern Ireland carried out by the Centre for Business Research at Cambridge University on behalf of Invest NI. The survey drew from two sampling frames: the Dun & Bradstreet Marketing Database and the Invest N.I. client list. The survey sample totalled 4,751 firms, with 2,906 residing only on the D&B database, 1,176 on the Invest N.I. list only and the remaining 669 firms on both databases. A response rate of one-fifth was achieved, yielding an analysis sample of 853 firms.

In a previous report, CBR SME Benchmarking Survey for Northern Ireland, we compared the characteristics of this sample with a sample of SMEs from the rest of the United Kingdom who responded to the CBR 2002 survey. The present report differs in two ways. First, it draws its comparisons wherever possible with the new CBR survey of GB SMEs, referred to here as GB 2004. Second, it allows for a comparison of samples matched by size and sector.

1a Industrial Activity, Age, Size, Growth and Exporting

The size and industrial distribution of the matched samples are shown in Table 1.1.

Table 1.1 The distribution by employment size and industrial activity in 2004

	Micro %		Small %		Medium %		*All %*	
Name	GB	NI	GB	NI	GB	NI	*GB*	*NI*
Chemicals, man-made fibres, rubber & plastic	3.8	3.9	6.6	6.5	11.6	11.6	*5.1*	*5.1*
Metal manufacture & metal goods	7.6	7.6	10.9	10.9	19.2	19.2	*9.3*	*9.3*
Electrical & electronic engineering	3.3	3.3	7.8	7.5	0.0	0.0	*5.0*	*4.9*
Food & beverages	3.8	3.6	9.1	9.3	11.5	11.5	*6.2*	*6.2*
Textiles, leather, footwear & clothing	2.7	2.7	5.3	5.3	7.7	7.7	*3.9*	*3.9*
Timber, furniture, paper & printing	10.7	10.9	15.3	16.2	23.1	23.1	*13.0*	*13.5*
Mechanical engineering	5.6	5.6	8.1	8.1	0.0	0.0	*6.4*	*6.4*
Other manufacturing	5.1	4.9	6.6	5.9	7.7	7.7	*5.8*	*5.4*
Manufacturing	*42.6*	*42.5*	*69.7*	*69.7*	*80.8*	*80.8*	*54.7*	*54.7*
Advertising & management consultancy services	5.1	3.1	0.9	0.3	0.0	0.0	*3.3*	*1.9*
R&D and technical consultancy services	2.0	2.2	1.6	1.6	0.0	0.0	*1.7*	*1.9*
Computing hardware & software consultancy	6.9	6.9	5.3	5.3	7.7	7.7	*6.3*	*6.3*
Other business services	43.4	45.3	22.5	23.1	11.5	11.5	*34.0*	*35.2*
Business Services	*57.4*	*57.5*	*30.3*	*30.3*	*19.2*	*19.2*	*45.3*	*45.3*
Total Responses	*449*	*448*	*320*	*321*	*26*	*26*	*795*	*795*

The split of the sample by size and broad industrial sector is displayed further in Figure 1.1 which shows the distribution of the survey firms between manufacturing and business services for our three standard size categories of firm, micro (less than 10 employees), small (10<100 employees) and medium (100<500 employees). The highest proportion of business service firms (58%) is in the micro category and the highest for manufacturing (81%) is in the medium category.

Figure 1.1
Distribution of businesses by size and business activity

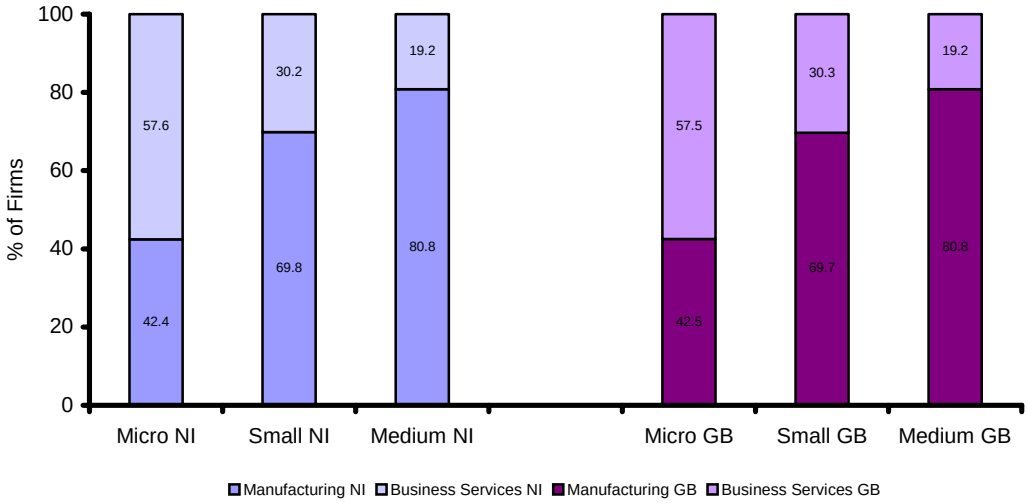


Figure 1.2 shows the distribution of our sample by date of formation of the business in comparison with the matched GB sample. Over three-quarters of the sample was formed after 1980 compared with only two-thirds of the matched GB sample. Since this is neither due to size or sector differences, nor to a different timing of the survey, it appears to demonstrate a greater birth rate of small business. A much lower proportion, 3% compared with around 11% for the GB, date from the pre-war period (a group of firms that represents the long lived mature section of the UK SME population).

Figure 1.2
Distribution of businesses by date of formation

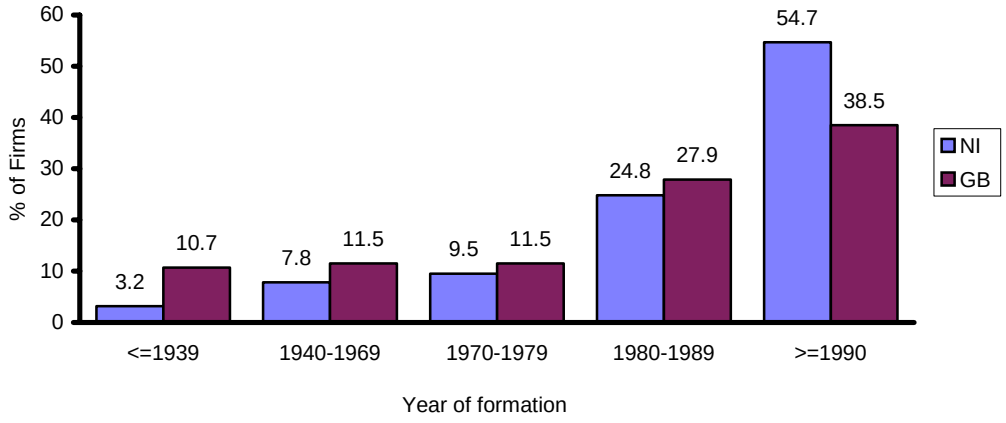


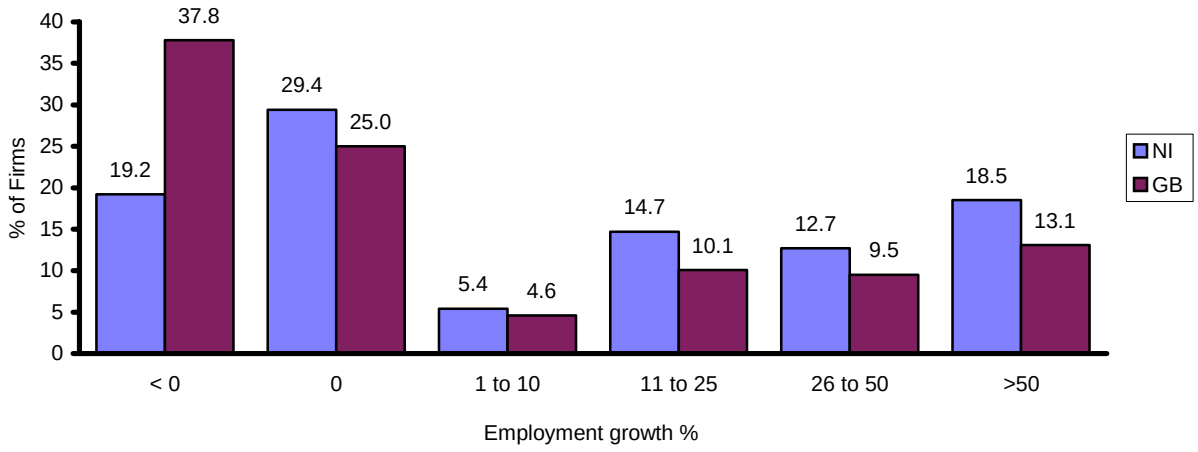
Table 1.2 provides a breakdown by employment size and age, where newer means firms formed since 1995. As might be expected the micro firms are disproportionately represented in the newer age group. Even so it is worth noting that 29% of small firms and 19% of the medium-sized firms fall into the newer category.

Table 1.2
The distribution by employment size and age - 2004

		Micro		Small		Medium		All	
		No.	%	No.	%	No.	%	No.	%
NI Newer	No.	215	48.8	92	28.8	5	19.2	312	39.7
	%	68.9		29.5		1.6		100.0	
NI Older	No.	226	51.2	227	71.2	21	80.8	474	60.3
	%	47.7		47.9		4.4		100.0	
GB Newer	No.	119	26.9	53	17.1	7	28	179	23.0
	%	66.5		29.6		3.9		100.0	
GB Older	No.	323	73.1	257	82.9	18	72	598	77.0
	%	54		43		3		100.0	
NI All	No.	441	100.0	319	100.0	26	100.0	786	100.0
	%	56.1		40.6		3.3		100.0	
GB All	No.	442	100.0	310	100.0	26	100.0	777	100.0
	%	56.9		39.9		3.2		100.0	

Growth experience in the three years up to the survey date is shown in Figure 1.3 which reveals that around 49% of all businesses stood still, or declined, in employment terms in that period. This compares with 63% of businesses in the GB 2004 survey. On the other hand, the finding of 18% of firms with employment growth of over 50% over the previous three years compares favourably with this and previous CBR surveys of GB SMEs.

Figure 1.3
Distribution of businesses by employment growth 2001-2004



Export activity is explored in Table 1.3, which shows the proportion of firms exporting and the ratio of exports to sales ratio (for exporters only). These are shown for the sample cut by the size sector and age categories described earlier plus two other categories; growth (stable or declining, medium < 25%, fast >25%) and innovative activity (whether or not the firm made a process or product innovation in the three years prior to the innovation). These standard cuts are used throughout the rest of this report.

The analysis of export activity shows that the proportion exporting is generally higher in 2004 than in 2001 and across groups is significantly higher in manufacturers, growing firms and innovators compared to their counterpart groups. Amongst exporters themselves, export intensity is roughly the same in both years. Newness affects export intensity, with older firms showing significantly less intensity than those more recently established which echoes the results of our previous surveys. Innovators also exhibit a higher export intensity than non-innovators.

Table 1.3
Exports and Export Intensity

	% of Firms Exporting		Ratio of Exports to Sales (exporters only)	
	2001	2004	2001	2004
GB 2004 - All	35.4 **	29.4**	0.12**	0.11**
NI 2004 - All	52.0	56.0	0.22	0.22
Northern Ireland Groups				
Manufacturing	65.5**	67.0**	0.23	0.26**
Services	35.2	43.2	0.18	0.17
Older	50.9	54.4	0.21**	0.20**
Newer	55.2	59.4	0.25	0.30
Stable/ Declining	46.4**	49.8**	0.22	0.20
Medium Growth	63.3	66.7	0.25	0.23
Fast Growth	56.1	62.2	0.21	0.24
Non-Innovators	36.7**	40.7**	0.22	0.20**
Innovators	63.7	67.9	0.22	0.25

Asterisks in the first row of a group indicate statistically significant differences between the types of business grouped by age, industry, growth or innovation experience (* = significant at the 10% level, ** = significant at the 5% level or better).

The comparison of the NI 2004 results with the equivalent figures for the matched GB 2004 survey is shown in the first row of Table 1.3. This reveals that, after allowing for size and sector, the proportion of firms that export, and the export intensity of those that do export, is significantly higher in the NI sample. This is explored further in Table 1.4 by splitting the sample into the three size groups. Both samples show that larger firms are more likely to be exporters. In addition, the export intensity of NI firms is higher than those in the GB sample in each of the size categories and the gap appears to have widened over the past three years.

Table 1.4
Exports and Export Intensity

	% of Firms Exporting		Ratio of Exports to Sales (exporters only)	
NI 2004	(2001)	(2004)	(2001)	(2004)
Micro	39.2**	42.9**	0.22	0.22
Small	64.3	69.6	0.24	0.23
Medium	76.5	81.8	0.15	0.21
GB 2004	(2001)	(2004)	(2001)	(2004)
Micro	28.6**	19.9**	0.18	0.11
Small	41.0	39.7	0.00	0.11
Medium	64.7	56.5	0.12	0.12

Asterisks in the first row of a group indicate statistically significant differences between the types of business grouped by size (* = significant at the 10% level, ** = significant at the 5% level or better).

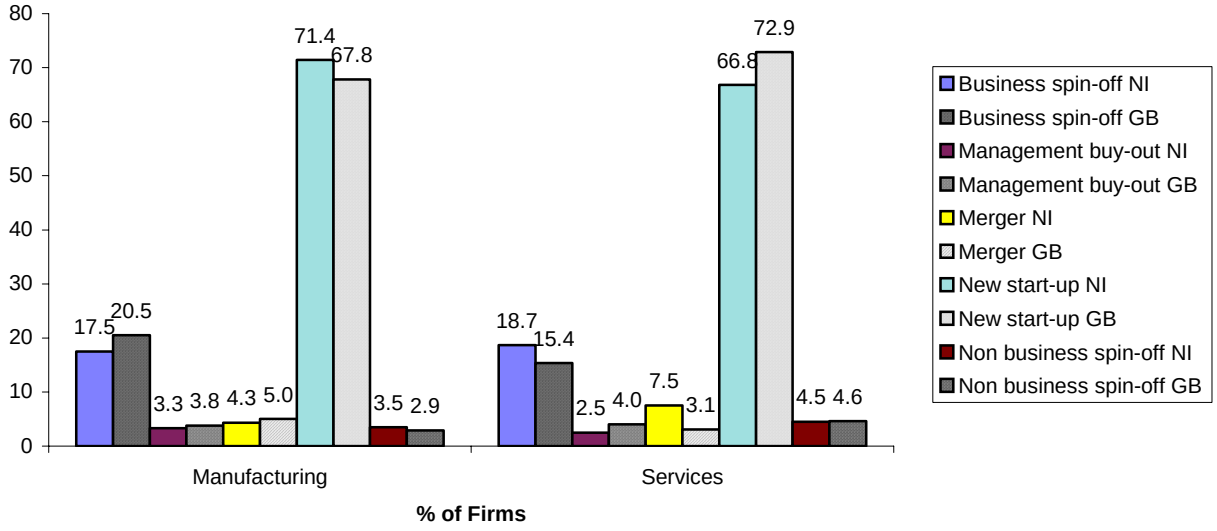
1b Business Foundation and Business Leadership

Perennial concerns of business support policy in the UK have included the relative emphasis to place upon business formation and the implications for policy of the existence of so-called 'life-style businesses'. More recently attention has focussed on spin-offs as a form of business formation, especially in the knowledge based sectors of the economy and the relative patterns of constraints preventing different sorts of firms from attaining their business objectives.

This has been accompanied by an interest in the characteristics of women entrepreneurs, the role of shared ownership in enhancing workforce and business motivation, the monitoring and advisory impact of venture capital associated appointments to small company boards and the overall level of management competence in the SME sector. The NI survey results shed some light on each of these areas in comparison with the rest of the UK.

Figure 1.4 analyses the method of business foundation in the NI sample in comparison with the GB 2004 sample. It separates business formation into five categories; spin-off from an existing business; management buy-out; merger; entirely new start-up; and spin-off from a non-business organization. Patterns of start-up are shown for manufacturing and services. The figure shows that new start-ups are the dominant mode of foundation, followed some way behind by business spin-outs. Although spin-offs are relatively small in number they have been increasing over time and imply a more experienced management team at start-up which may have beneficial implications for failure rates in the business population as a whole. Although there are differences the overall picture shows similar proportions of each type of start-up in NI and the rest of the UK.

Figure 1.4
Distribution of businesses by method of formation



We asked respondents to select their main motivations for starting a business including unemployment, desire to run your own business, desire to implement a new idea, and wealth ambitions. The importance of each of these motivations is shown for different classes of firm and type of start-up for the NI sample in Figures 1.6 to 1.9. Figure 1.5 shows the comparisons between the NI and the GB samples. The first point to make is that looking at the first pair of columns we find that a desire to run your own business is the dominant motive cited by about 70% of respondents in both the NI and GB surveys. Wealth ambitions and the desire to exploit an idea are cited by between 20% and 30% in both NI and in the GB. Unemployment, or the threat of it, is less significant as a motive for business formation for business spin-offs and larger businesses.

Figure 1.5
Motivations for starting a business

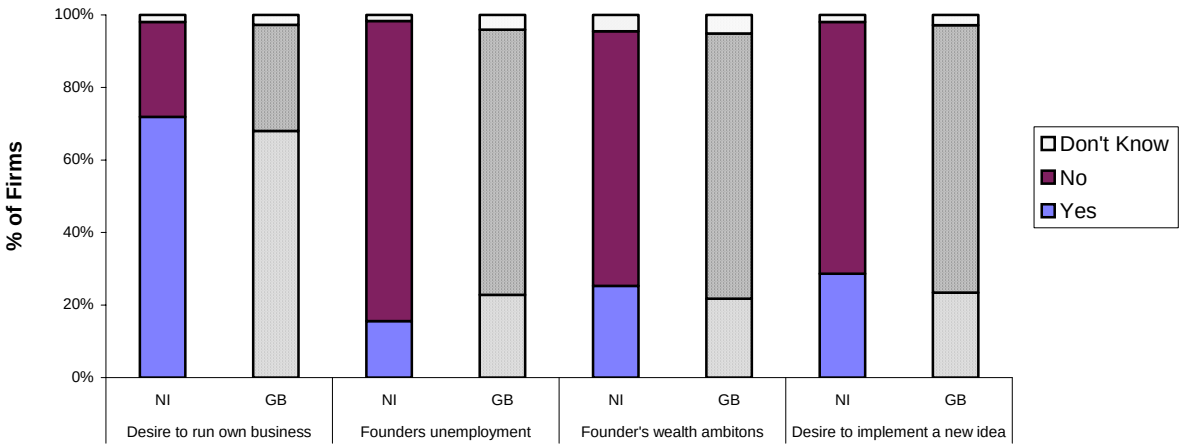
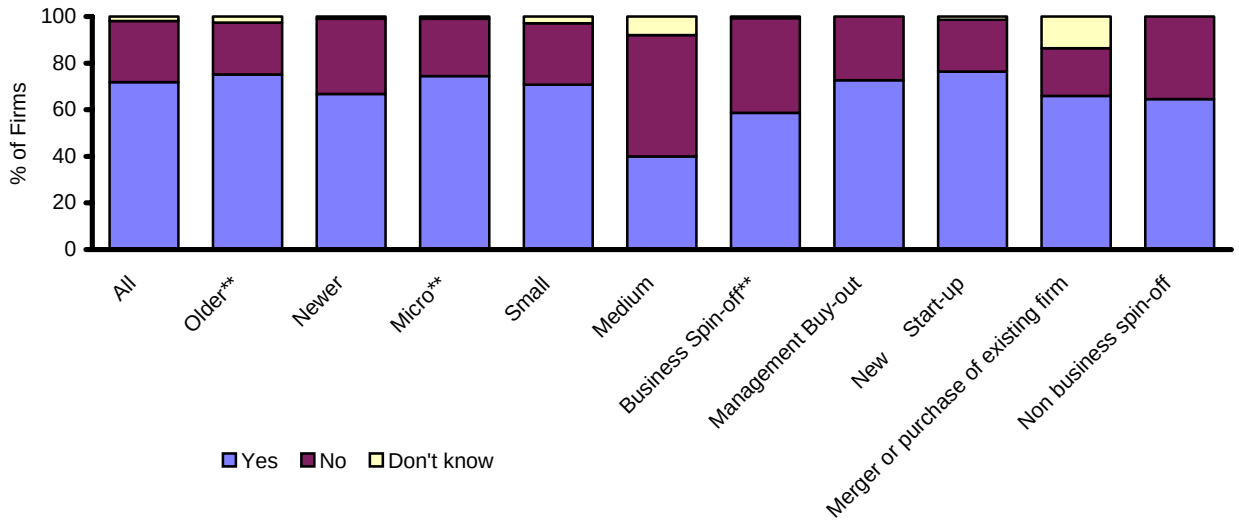


Figure 1.6
Desire to run own business as a factor in formation



The desire to be your own boss is a significantly more frequent motive in new start-up and micro firms. New ideas feature more strongly in business spin-offs and newer firms, and wealth ambitions in the medium sized and newer firms, whilst the threat of unemployment is a more prevalent motive in newer and micro firms and amongst management buy-outs. No other differences are statistically significant. These findings for NI firms are very similar to those found for GB firms using the same questions.

Figure 1.7
Unemployment as a factor in formation

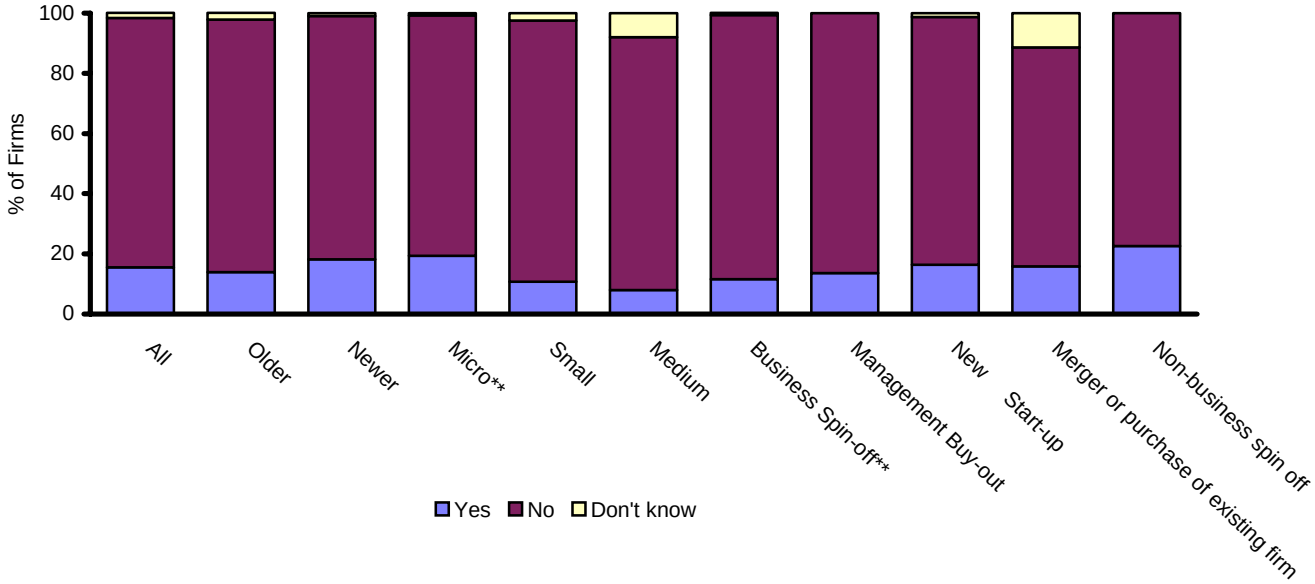


Figure 1.8
Wealth ambitions as a factor in formation

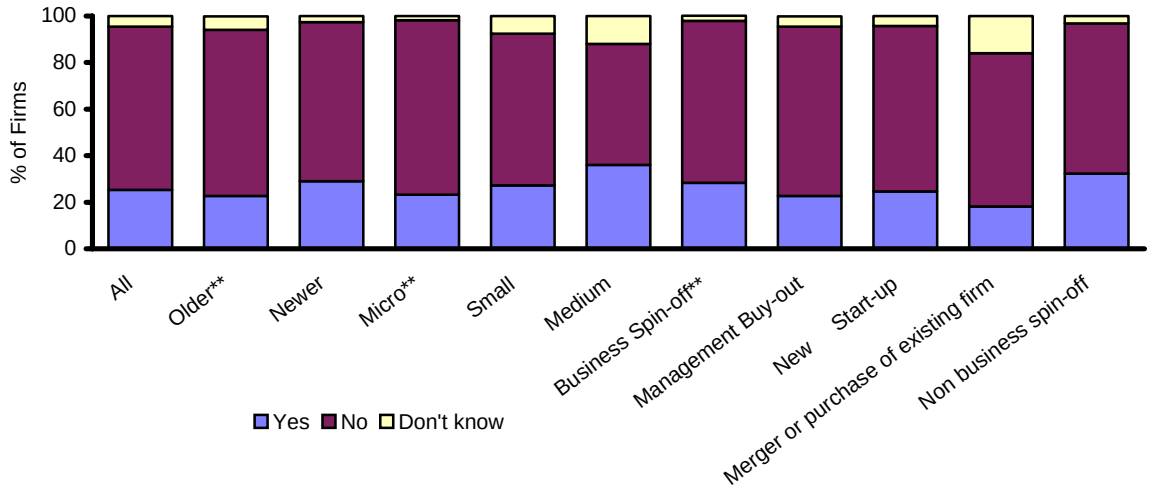
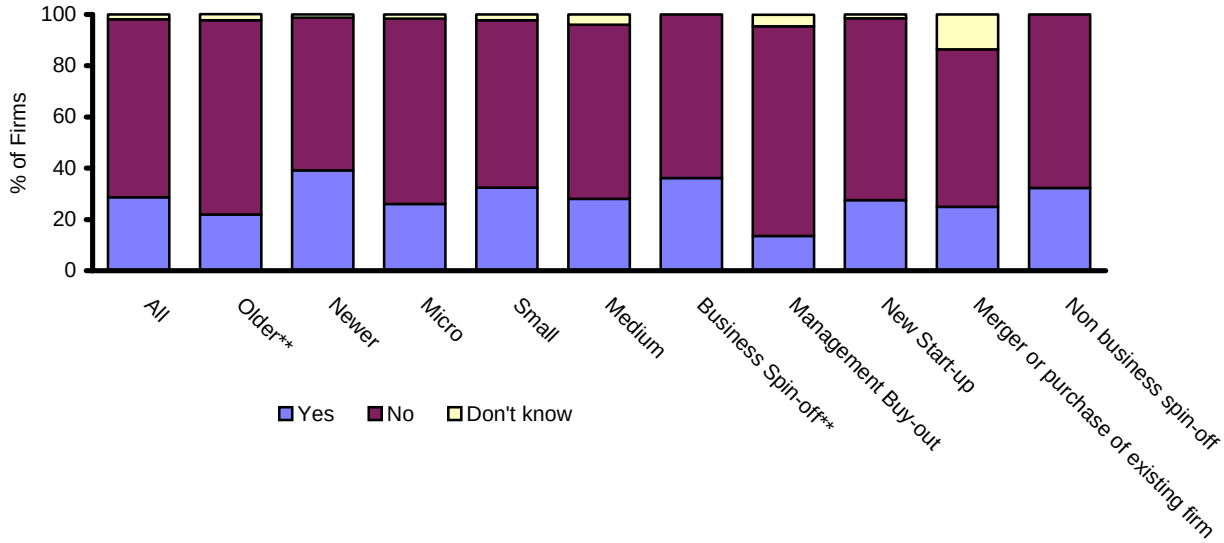


Figure 1.9
Desire to implement a new idea as a factor in formation



Whatever the wealth ambitions of business founders they end up with substantial shares of the capital invested in their business, and spend long periods with them.
Thus Table 1.5 shows that on average the business leader is in his or her late forties (compared with the mid-fifties in the GB survey) and has spent 13 years with the business and 10 as chief executive, with these periods statistically significantly longer in older, manufacturing, and slower growing firms. This pattern is the same for the GB sample in which the average age and experience is about 4 years greater. The table also shows that 9% of leaders are female and that they are more frequently found in services and newer firms and less frequently in medium growth firms.

Table 1.5

Characteristics of the chief executive, senior partner or proprietor

	GB 2004 All	NI 2004 All	Northern Ireland						
			Manufacturing	Services	Older	Newer	Stable/ Declining	Medium Growth	Fast Growth
Years with the business	17**	13	14**	12	19**	5	16**	19	9
Years as chief executive	14**	10	11**	10	16**	5	14**	16	8
Age	54**	49	49**	48	52**	43	51**	54	44
% female	8.7	8.7	7.4	10.2	7.5	10.7	8.4**	1.9	11.1

Asterisks in the first column of a group indicate statistically significant differences between the types of business grouped by age, industry or growth (* = significant at the 10% level, ** = significant at the 5% level or better).

These characteristics can be examined across the firm size classes in the NI and GB samples in Table 1.6. In both samples the years with the business of the boss is greatest in the medium-sized firms. The experience of the boss is greater in the GB sample for the micros and small size classes. The age of the business leader does not vary in any consistent fashion across the size groupings in either sample. The likelihood of the business leader being a female diminishes with firm size in the GB sample, but this is not the case for NI firms. After adjusting for size and sector we find a similar proportion of female business leaders in the micro and small firms in NI as in GB firms. However, the proportion amongst medium-sized firms is much higher in NI (but the sample size is small in this group).

Table 1.6

Characteristics of the chief executive, senior partner or proprietor

	NI 2004			GB 2004		
	Micro	Small	Medium	Micro	Small	Medium
Years with the business	11**	15	20	15*	18	22
Years as chief executive	10**	12	14	14	14	15.5
Age	48	50	47	54	54	53.5
% female	11.2**	4.5	16.0	10.6	6.7	0.0

Asterisks in the first column of a group indicate statistically significant differences between the types of business grouped by size (* = significant at the 10% level, ** = significant at the 5% level or better).

Table 1.7 reports on the extent of planning and e-business involvement in our sample. It shows a mixed comparison with the rest of the UK. In this matched sample NI firms have higher proportions with a business plan, but lower proportions in the other attributes. We will examine this in relation to firm size shortly. About forty per cent of the NI sample does not have monthly management accounts. Moreover only 15% have a human resources plan and less than 50% have a business plan. These tendencies are all more marked for services, stable and declining and non-innovating firms. Thus 70% of non-innovators don't have a business plan and about 92% don't have a human resources plan. 60% of the matched firms have a web information site and about 20% have a web site for trading.

Table 1.7 Business plans, management accounts and the web

	GB 2004 - All		NI 2004 - All		Northern Ireland								
	No.	%	No.	%	Older	Newer	Manu-facturing	Services	Stable/ Declining	Medium Growth	Fast Growth	Innovators	Non-innovators
Business plan	786	40.2**	755	49.8	39.7**	65.4	52.8*	46.2	33.9**	52.8	64.9	64.0	31.4**
Human resources plan	784	15.9	704	14.5	16.2	12.3	15.4	13.4	13.0**	18.4	22.5	19.6	7.7**
Monthly management accounts	792	74.5**	745	63.0	64.5	61.0	68.7**	56.0	58.2**	71.3	69.4	70.9	53.5**
Web site for information	792	68.7**	749	60.2	56.5**	65.6	63.1*	56.7	50.6**	75.0	68.8	72.5	45.0**
Web site for trading	780	25.0**	722	20.4	17.8	23.0	22.4	17.9	16.4**	16.3	30.1	26.3	12.8**

Asterisks in the first column of a group indicate statistically significant differences between the types of business grouped by age, industry, growth or innovation experience (* = significant at the 10% level, ** = significant at the 5% level or better).

Since these measures of management sophistication have been found to be related to firm size, Table 1.8 compares the findings for NI and GB firms within the size groups. This table confirms previous findings about the effect of size and also reveals the importance of examining differences within size groups. After allowing for size and sector, the NI firms are found to be more likely to engage in business planning than the rest of the UK, but less likely to have monthly management accounts. The use of the web for information and trading does appear to be lower than for GB firms even within these size groupings. This is not the case for Invest NI client firms, which are generally far more likely to engage in these activities compared with other NI firms.

Table 1.8
Business plans, management accounts and the web

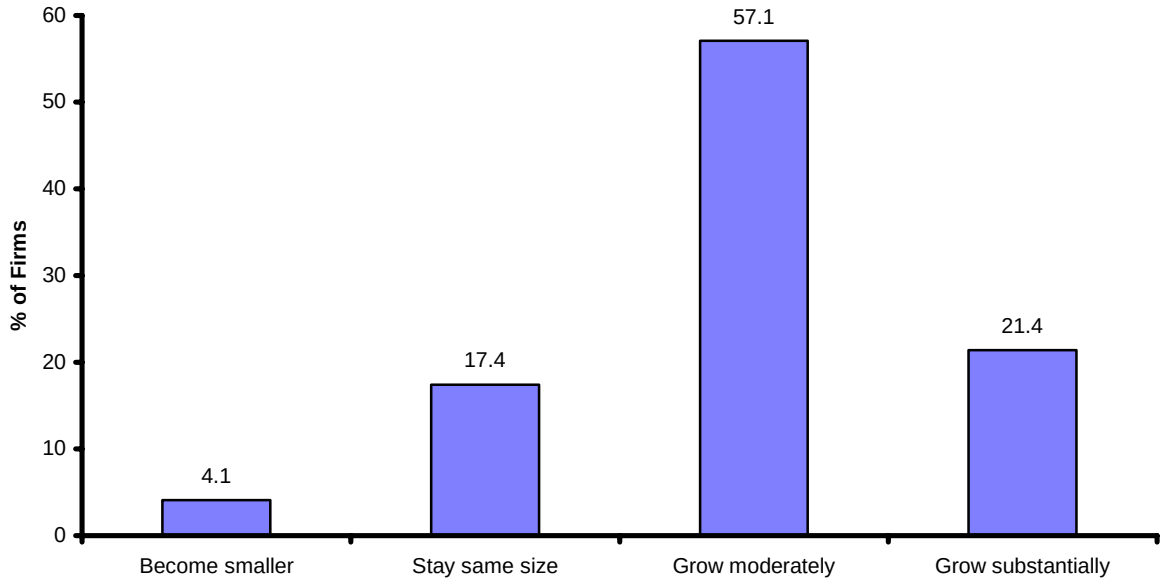
	NI 2004			GB 2004		
	Micro	Small	Medium	Micro	Small	Medium
Business plan	40.8**	60.3	73.1	30.7**	49.8	84.6
Human resources plan	6.8**	21.8	56.0	10.2**	20.3	61.5
Monthly management accounts	50.2**	78.1	92.0	62.6**	89.1	100.0
Web site for information	48.7**	73.2	92.3	56.1**	84.4	92.3
Web site for trading	16.1**	26.4	19.2	21.1**	29.1	42.3

Asterisks in the first column of a group indicate statistically significant differences between the types of business grouped by size (** = significant at the 5% level or better).

1c Growth Targets and Constraints on Meeting Business Objectives

Figure 1.3 above provided a detailed breakdown of the recent growth performance of our sample. How does this experience relate to future growth objectives? These are shown in Figure 1.10. Around one fifth of the sample are not seeking to grow, a much lower proportion than the non-growers over the past three years. On the other hand, about 20% expect to grow substantially which is consistent with the kind of numbers experiencing rapid growth in our sample. These are broadly similar, but slightly more ambitious, than those found for the matched GB sample as may be seen in Table1.9.

Figure 1.10
Growth objectives over the next three years - NI



The finding that fast growth firms and innovators are more likely to have higher growth ambitions is found also to be the case for the NI sample.

Table 1.9
Growth objectives over the next three years by growth and innovativeness (%)

Growth objectives	GB 2004 - All	NI 2004 - All	Northern Ireland				
			Stable/ Declining	Medium Growth	Fast Growth	Innovators	Non-innovators
Become smaller	5.2**	4.1	8.6**	1.8	0.6	2.3**	6.3
Stay same size	23.0	17.4	31.3	3.6	9.4	11.3	25.4
Grow moderately	55.6	57.1	50.4	69.1	58.2	55.6	58.9
Grow substantially	16.1	21.4	9.8	25.5	31.8	30.8	9.4
Total responses (no.)	781	758	256	110	170	426	331

Asterisks in the first column of a group indicate statistically significant differences between the types of business grouped by growth or innovation experience (* = significant at the 10% level, ** = significant at the 5% level or better).

When the size groupings are considered we find that larger SMEs are more ambitious in their growth plans. However, in the matched sample, NI firms are found to be more ambitious than their GB counterparts in the micro and small size groups and this can be seen in Table 1.10 below.

Table 1.10
Growth objectives over the next three years by size (%)

	---------- NI 2004 ----------			---------- GB 2004 ----------		
Growth objectives	Micro	Small	Medium	Micro	Small	Medium
Become smaller	6.0**	1.9	0.0	7.0**	3.2	0.0
Stay same size	21.5	12.8	7.7	31.8	12.1	7.7
Grow moderately	56.1	58.8	53.8	48.4	65.7	53.8
Grow substantially	16.5	26.5	38.5	12.7	19.0	38.5
Total responses (no.)	419	313	26	440	315	26

Asterisks in the first column of a group indicate statistically significant differences between the types of business grouped by size (* = significant at the 10% level, ** = significant at the 5% level or better).

We now turn to the constraints that firms identify as constraining the attainment of their business objectives. The proportions rating a constraint as very significant, or crucial are shown in Table 1.11 are highest for the age, growth and innovation groups. In general, we find that access to finance is the most commonly reported very significant, or crucial, constraint by NI firms. Newer firms and innovators are more concerned about access to finance, availability of premises and marketing skills than their older, or non-innovating counterparts. Innovators are also more concerned about access to overseas markets, whilst newer firms have greater problems with increasing competition. Some interesting differences in constraints are also apparent if we look at faster growing firms. Here we find that access to skilled labour, marketing and management skill shortages, and access to finance appear as more significant constraints than for slower growing firms. Fast growing firms also identify access to overseas markets, availability of premises and the acquisition of technology as more significant constraints than do other firms.

Table 1.11
Constraints on ability on meeting business objectives by age, growth and innovativeness (%)

Constraints	Northern Ireland						
	Older	Newer	Stable/ Declining	Medium growth	Fast growth	Non-innovators	Innovators
Availability and cost of finance for expansion	29.8**	47.7	29.8**	31.5	45.6	30.2**	42.8
Availability and cost of overdraft finance	24.0**	40.0	24.5**	22.5	39.8	23.2**	36.7
Increasing competition	26.3	22.0	23.7	32.4	24.0	24.8	24.2
Skilled labour	21.9	26.7	20.0*	31.5	24.6	23.8	23.5
Marketing and sales skills	17.8**	25.0	18.0	20.7	25.1	16.2**	24.0
Overall growth of market demand	19.2	18.0	18.0	17.1	21.6	16.2	20.5
Availability of appropriate premises or site	12.7**	22.3	8.2**	16.2	24.0	13.7**	19.3
Management skills	17.1	17.0	11.0**	22.5	21.6	15.6	17.6
Access to overseas markets	11.5*	16.0	7.3**	14.4	19.9	9.5**	16.5
Acquisition of technology	11.1	13.0	9.4**	8.1	17.6	10.8	12.7
Difficulties in implementing new technology	10.6	10.0	9.8	9.0	10.5	9.8	10.4
Total responses (no.)	433	300	245	111	171	315	425

Asterisks in the first column of a group indicate statistically significant differences between the types of business grouped by age, growth or innovation experience (* = significant at the 10% level, ** = significant at the 5% level or better).

The constraints found for NI firms are compared with those of GB firms in Table 1.12. We can see that finance constraints, the acquisition of technology and access to overseas markets are much higher for NI firms. Marketing skills and market demand growth are higher for GB firms. The findings for the medium-sized groups in the NI survey must be treated with caution owing to the small sample size.

Table 1.12
Constraints on ability on meeting business objectives by size (%)

Constraints	NI 2004			GB 2004		
	Micro	Small	Medium	Micro	Small	Medium
Availability and cost of finance for expansion	40.0‡‡	33.5‡‡	42.3‡	20.3	21.8	17.6
Availability and cost of overdraft finance	33.1‡‡	27.8‡‡	34.6	16.0	13.3	17.6
Increasing competition	17.9**	32.3	30.8	18.2**	30.8	23.5
Skilled labour	22.6	25.2	23.1	19.3	27.0	29.4
Marketing and sales skills	18.4	23.3	23.1	19.8	26.1	35.3
Overall growth of market demand	16.4**	19.8‡‡	38.5	17.1**	33.2	17.6
Availability of appropriate premises or site	14.9‡‡	19.8‡‡	11.5	8.6	10.9	17.6
Management skills	13.4**	21.4	19.2	10.2**	19.4	29.4
Access to overseas markets	11.9‡‡	15.3‡‡	15.4	6.4	8.1	5.9
Acquisition of technology	10.7	13.5‡	11.5	8.6	8.1	5.9
Difficulties in implementing new technology	9.2	11.8	7.7	8.6	9.0	0.0
Total responses (no.)	402	313	26	187	211	17

Asterisks in the first column of a group indicate statistically significant differences between the types of business grouped by size within country (* = significant at the 10% level, ** = significant at the 5% level or better).‡ in the first column of a group indicates statistically significant differences between the countries within size group (‡ = significant at the 10% level, ‡‡ = significant at the 5% level or better).

2 Competition and Collaboration

2a Customers

The firms in the survey operate under a variety of competitive conditions. As shown in Table 2.1, approximately a third of the firms in the sample relied on one customer for 10% or less of their sales, about the same as found in the size and sector matched UK sample. In the NI survey a higher proportion, 19% compared with 14% elsewhere, have more than half their sales going to their largest customer. As in previous CBR surveys we find that newer firms have greater dependence on fewer customers. No statistically significant differences are found between the other groups.

Table 2.1

Concentration of sales with largest single customers (%distribution of firms)

% sales to largest customer	Less than 10%	10%-24%	25%-49%	50%-100%	No. of firms
GB 2004 - All	32.4	33.2	20.4	14.0	737
NI 2004 - All	31.9	30.9	18.6	18.5	708
Northern Ireland Groups					
Manufacturing	30.6	30.1	20.6	18.8	389
Services	33.5	32.0	16.3	18.2	319
Stable/Declining	33.2	33.6	18.5	14.7	238
Medium growth	31.2	38.5	17.4	12.8	109
Fast growth	35.3	27.6	19.4	17.7	170
Newer**	28.7	27.2	19.1	25.0	272
Older	34.0	33.7	18.4	14.0	430
Innovators	29.0	33.5	20.7	16.9	397
Non-innovators	35.9	27.2	16.2	20.7	309

Asterisks in first row of a group indicates statistically significant differences between the types of businesses (* significant at the 10% level, ** significant at the 5% level)

Table 2.2 shows that for the matched sample of GB firms, micro firms are most likely to depend on fewer customers for the bulk of their business. Amongst GB firms, 38 % of micro firms depend on one customer to provide at least a quarter of their business compared to 31% for small firms and 24% of medium-sized firms. The picture is quite different for the NI sample. For example, we can see in Table 2.2 that 38% of micro firms depend on their top customer to provide at least a quarter of their business; and this compares with 36% for small firms and 32% for medium-sized firms.

Overall, the findings in Table 2.2 shows that the contrast between the different size groups is muted and statistically insignificant for the NI sample. This is particularly attributable to the medium-sized group, but the number of observations here requires caution in the interpretation of this finding.

Table 2.2

Concentration of sales with largest single customers (%distribution of firms)

% sales to largest customer	Less than 10%	10%-24%	25%-49%	50%-100%	No. of firms
NI 2004					
Micro	33.3	28.6	17.4	20.6	384
Small	29.8	33.8	20.7	15.7	299
Medium	36.0	32.0	12.0	20.0	25
GB 2004					
Micro**	32.8	29.6	18.7	18.9	412
Small	32.7	36.7	22.3	8.4	300
Medium	24.0	52.0	24.0	0.0	25

Asterisks in first row of a group indicates statistically significant differences between the types of businesses (* significant at the 10% level, ** significant at the 5% level)

Table 2.3 sheds light on the location of markets for the sample of firms in the survey. Each of the firms was asked to identify its largest market. 41.6% of the firms consider that local markets are their most important compared to 31.4% for the rest of Northern Ireland, 12.9% with the rest of the UK, 9.0% with the Republic of Ireland and 5.0% with other international markets as most important. There were significant variations between categories of firms. Manufacturing and fast growth firms have less dependence on local markets and do more trade with the rest of the UK and the Irish Republic (but not other international markets). Newer and innovative firms also have less dependence on local markets, but they have additional dependence on international markets, as well as the rest of the UK and the Irish Republic.

Table 2.3

Geographical scope of markets (% distribution of firms) – Northern Ireland

Type of firm	Local	Other Northern Ireland	Other UK	Republic of Ireland	Other International
All firms	41.6	31.4	12.9	9.0	5.0
Manufacturing**	37.7	31.4	14.7	11.8	4.4
Services	46.2	31.5	10.7	5.8	5.8
Stable/Declining	46.3	33.6	10.4	5.8	3.9
Medium growth	35.5	32.7	13.6	13.6	4.5
Fast growth	35.8	34.5	14.5	9.7	5.5
Newer**	36.9	29.5	13.4	10.4	9.7
Older	44.2	33.1	12.7	8.0	2.0
Innovators**	30.6	32.8	16.9	11.6	8.2
Non-innovators	54.9	30.0	8.0	5.9	1.2

Asterisks in first row of a group indicates statistically significant differences between the types of businesses (* significant at the 10% level, ** significant at the 5% level)

Table 2.4 shows the relationship between firm size and the geographical scope of markets for NI firms in comparison with the GB sample. It can be seen that the questions asked in

the two surveys were slightly different, but both exhibit the expected result that larger firms are more likely to be operating further away from the home base. Thus, the proportion of the matched NI firms that have either the rest of the UK, the Republic of Ireland, or other international markets as their largest market is 21 % for micro firms, 33% for small firms and 54% for medium-sized businesses. But the NI firms do show more dependence on local markets than their GB counterparts.

Table 2.4
Geographical scope of markets (% distribution of firms)

Type of firm	Local	Other Northern Ireland	Other UK	Republic of Ireland	Other International	No. of firms
NI 2004						
All firms	41.6	31.4	12.9	9.0	5.0	754
Micro**	47.7	31.4	9.0	6.7	5.2	421
Small	34.9	32.2	16.3	12.1	4.6	307
Medium	23.1	23.1	34.6	11.5	7.7	26

Type of firm	Local	Regional	National	International	No. of firms
GB 2004					
All firms	25.6	20.2	44.0	10.3	778
Micro**	32.9	20.5	36.5	10.0	438
Small	17.2	21.3	50.6	10.8	314
Medium	3.8	0.0	88.5	7.7	26

Asterisks in first row of a group indicates statistically significant differences between the types of businesses (* significant at the 10% level, ** significant at the 5% level)

2b Competitors

The number of serious competitors faced by the firms in the survey is shown in Table 2.5. There is a lack of extensive competition facing most firms in the sample: 80 % of firms had fewer than 10 serious competitors compared with 77% for the matched GB sample. 9% of the NI firms believe that they have no serious competitors, compared with 18% for the rest of the UK. There are variations in the pattern of competition by firm category, but none are statistically significant. 75% of service sector firms have fewer than 10 serious competitors compared to 85% for manufacturing firms. However service sector firms are more likely to face no serious competition (12%) or very extensive competition (3% face 100 or more serious competitors) – these findings are consistent with those found for the GB sample.

The different growth categories show no particular pattern. Newer and older firms have only marginal differences in the pattern of competition they face. Non-innovating firms and innovating firms both have about 80% with fewer than 10 serious competitors, but only 6% of innovating firms face no serious competition compared with 14% of non-innovating firms.

Table 2.5
Number of competitors (% distribution of firms)

Type of firm	0	1-4	5-9	10-19	20-98	>98
GB 2004 - All	18.0	35.9	22.8	12.9	6.5	3.9
NI 2004 - All	9.3	45.1	26.0	12.4	5.9	1.3
Northern Ireland Groups						
Manufacturing	6.9	48.0	29.7	12.5	2.7	0.3
Services	12.2	41.6	21.5	12.2	9.9	2.6
Stable/Declining	12.9	41.8	24.0	12.9	7.1	1.3
Medium growth	4.7	34.9	34.9	17.0	7.5	0.9
Fast growth	7.5	49.1	24.5	13.2	5.0	0.6
Newer	9.7	47.2	24.9	10.8	5.9	1.5
Older	9.2	43.6	27.0	13.4	5.7	1.2
Innovators	5.9	48.8	25.8	13.0	6.1	0.3
Non-innovators	13.9	40.1	26.1	11.5	5.6	2.8

Asterisks in first row of a group indicates statistically significant differences between the types of businesses (* significant at the 10% level, ** significant at the 5% level)

The lack of apparent competition is greater, and statistically significant, for smaller firms; 81% of micro and small firms in Northern Ireland had less than 10 serious competitors compared to 68% of medium-sized firms. Furthermore, 14% of micro firms believed that they had no serious competition compared to 4% of small firms and 0% of medium-sized firms. This pattern is similar to that observed in the matched GB sample.

Table 2.6
Number of competitors (% distribution of firms)

Type of firm	0	1-4	5-9	10-19	20-98	>98	No. of firms
NI 2004							
Micro**	13.8	46.7	20.7	9.7	6.9	2.2	362
Small	4.4	44.0	32.1	15.4	3.8	0.3	293
Medium	0.0	36.0	32.0	16.0	16.0	0.0	25
GB 2004							
Micro**	25.8	35.4	16.9	12.1	5.3	4.5	356
Small	9.2	36.5	30.6	12.5	7.7	3.3	271
Medium	0.0	36.5	22.7	31.8	9.1	0.0	22

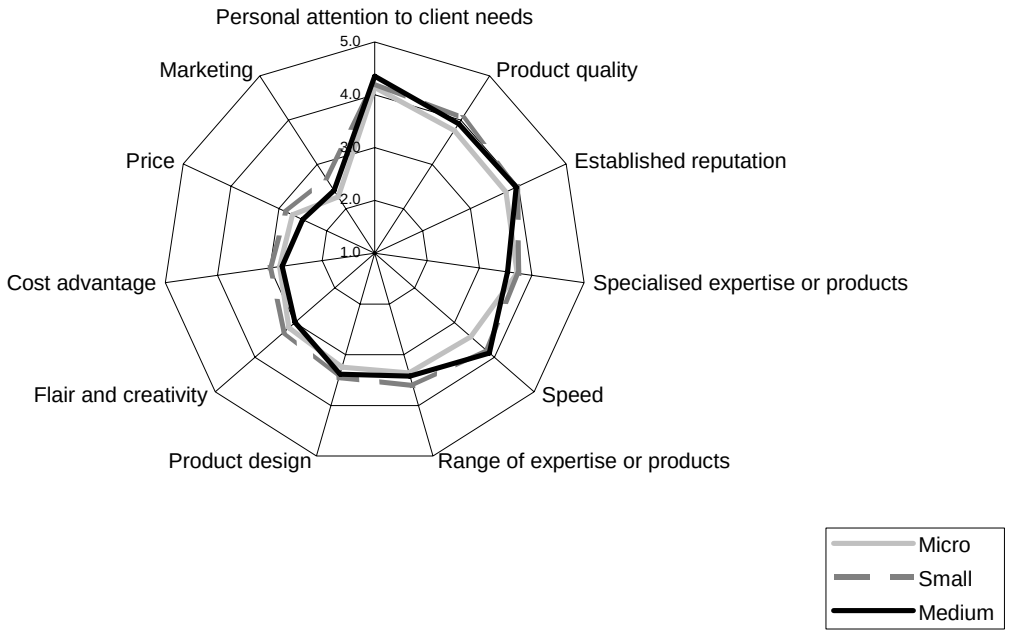
Asterisks in first row of a group indicates statistically significant differences between the types of businesses (* significant at the 10% level, ** significant at the 5% level)

2c The Sources of Competitive Advantage

To assess the sources of competitive advantage, each firm was asked to evaluate the contribution of a number of factors: on a scale with 1 meaning the factor was completely insignificant and 5 indicating a crucial factor.

Figure 2.1, which provides a graphical summary of the data by size category, shows that personal attention and responsiveness to client needs, product quality and established reputation. Those factors that had a low overall low rating include cost advantage, price and marketing – the latter is consistent with the evidence presented above that lack of marketing skills has been a significant factor that has constrained the growth of many firms in the survey.

Figure 2.1
Assessment of key factors which contribute to competitve advantage - NI



As shown in Table 2.7, the rankings of competitive factors for manufacturing and service sector firms are broadly similar - although there are statistically differences in 5 of the 11 factors. In general, manufacturing firms give higher scores to the factors, particularly for product design, quality, cost, price and speed of service. Micro firms particularly give low scores for price and for marketing skills as sources of competitive advantage. They also give lower scores for established reputation and, surprisingly, speed of service – a finding not evident in the GB surveys.

Table 2.7

Areas of competitive advantage (% of firms rating area as very significant or crucial)

Competitive advantage	GB 2004 All	NI 2004 All	Northern Ireland				
			Manu-facturing	Services	Micro	Small	Medium
Personal attention to client needs	86.0	81.1	81.6	80.6	80.2	81.7	88.5
Product or service quality	73.4	75.2	79.4**	70.1	71.3**	80.4	76.9
Established reputation	75.4	71.7	72.6	70.7	67.4**	77.6	73.1
Specialised expertise/product/service	69.3	67.7	67.1	68.5	68.3	67.5	61.5
Speed of service	62.8	59.5	65.0**	53.0	52.0**	68.1	80.8
Range of expertise/products/services	54.4	55.9	58.6*	52.7	54.3	58.4	53.8
Product or service design	46.6	55.5	61.5**	48.5	52.9	59.0	57.7
Flair and creativity	43.3	44.0	44.2	43.7	44.4	44.5	30.8
Cost advantages	27.7	32.4	36.4**	27.6	31.0	34.7	26.9
Price	25.4	28.1	33.1**	22.3	25.7**	32.5	15.4
Marketing and promotion skills	22.2	20.4	21.5	19.2	16.8**	25.9	15.4
Total responses (no.)	779	778	423	355	435	317	26

The sources of competitive advantage do vary by growth category. Older firms stress reputation, whilst newer firms identify design, flair and specialisms as their competitive edge. The newer firms also give greater emphasis to cost and price advantages. The better the growth performance of the firm, the more likely it will stress the importance of quality and design, specialisms and expertise, and marketing. The other categorisation that produces large and significant differences in competitive advantage is between innovating and non-innovating firms. There are statistically significant differences between the two types of firms for eight out of the eleven competitiveness factors. The largest differences - in terms of scores - were for product design, quality, flair and creativity, and specialised expertise or products - innovating firms scored all these factors more highly than non-innovating firms. Overall, innovating firms stress the importance of higher-order qualitative factors which require investment in skills and technical capabilities.

Table 2.8

Areas of competitive advantage (% of firms rating area as very significant or crucial)

Competitive advantage	Older	Newer	Stable/ Declining	Medium growth	Fast growth	Non-innovators	Innovators
Personal attention to client needs	79.8	82.8	80.1*	83.0	87.9	77.9**	83.8
Product or service quality	74.5	76.2	70.7**	81.3	81.0	68.8**	80.3
Established reputation	76.2**	64.4	70.7**	80.4	80.5	72.5	71.0
Specialised expertise/product/service	63.3**	74.6	62.4**	71.4	75.9	59.3**	74.7
Speed of service	59.9	58.7	55.3**	66.1	66.1	54.4**	63.5
Range of expertise/products/services	53.9	59.4	50.4*	59.8	60.9	50.1**	60.4
Product or service design	51.7**	61.1	49.2**	56.3	61.5	43.6**	65.1
Flair and creativity	40.8**	49.2	43.2	42.0	48.3	35.8**	50.6
Cost advantages	29.2**	36.3	28.2	34.8	35.6	29.5	34.7
Price	26.2	31.0	22.6	30.4	30.5	26.9	29.3
Marketing and promotion skills	18.7	23.1	15.0**	25.9	31.6	15.2**	24.6
Total responses (no.)	466	303	266	112	174	349	427

Asterisks in the first column of a group indicate statistically significant differences between the types of business (* = significant at the 10% level, ** = significant at the 5% level or better).

2d Collaboration and Cooperation

Effective collaboration has been identified as an important means of improving competitiveness and the firms in the survey were asked to provide details of formal or informal collaborative or partnership agreements into which they had entered during the last three years. As shown in Figure 2.2, 38% of firms had entered into such agreements with other organisations. Collaborative arrangements were more widely used in the service sector (47%) than in manufacturing (31%), reflecting the importance of networking in the business services sector. These figures are very similar to those found in the GB 2004 survey.

The likelihood of entering into a collaborative arrangement increases with firm size - 35% of micro firms enter collaborative agreements compared with 40% of small firms and 62% of larger firms. These figures are also similar to those found in previous CBR surveys. The growth performance category provides important contrasts as faster growing firms were more likely to enter into collaborative agreements - 45% of fast growth firms had entered into such agreements compared to 35% for the other growth groups improve business performance and growth. Additionally, newer firms are more likely to enter into collaborative arrangements than older firms - an important contrast as newer firms tend to be smaller and as noted above there is a positive relationship between firm size and collaboration. One of the greatest contrasts is between innovating and non-innovating firms - 45% of the former entered into partnership arrangements compared with only 29% of the latter. This is consistent with previous CBR surveys which have shown that collaboration is associated with greater innovation and higher rates of firm growth.

Figure 2.2
Percentage of firms entering into formal or informal collaborative partnership arrangements - NI

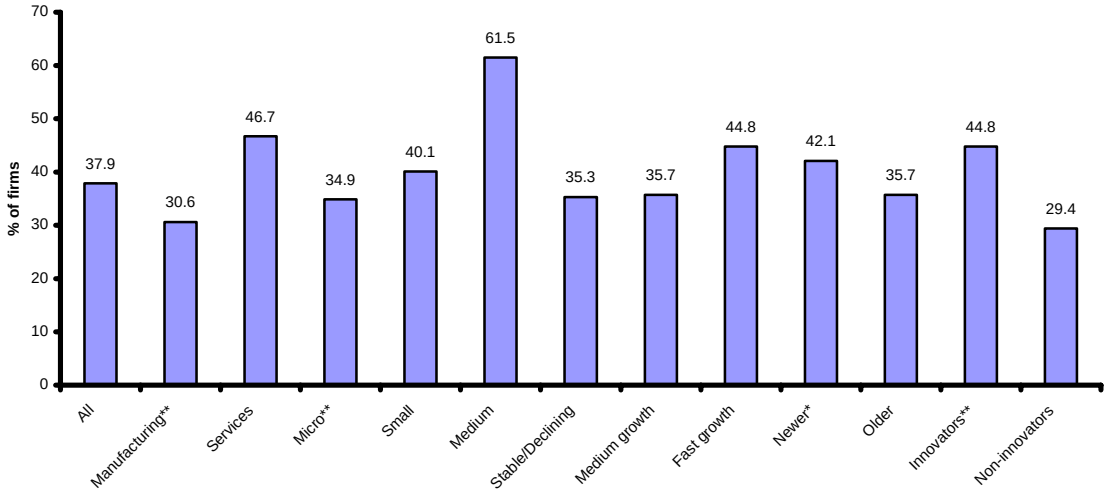


Figure 2.3 shows, for those firms that did collaborate, with whom the collaboration

occurred. There are significant variations in collaborative activity by firm size: in general, the larger the firm the more likely it will have collaborated with their suppliers, their customers and higher educational institutes. This suggests that larger firms have the logistical and administrative capability to access inputs and build relationships with others. The most common partner is a firm in the same line of business and this does not differ across the size groups.

Figure 2.3 Collaborative partners - NI

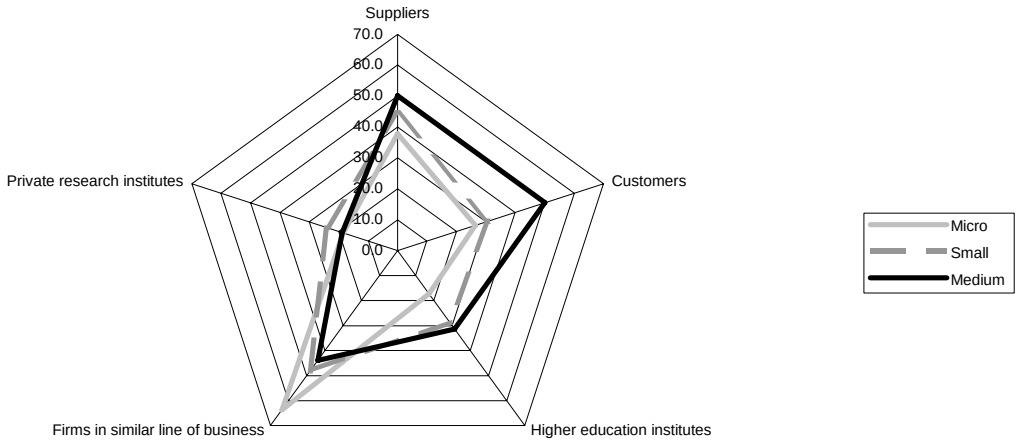
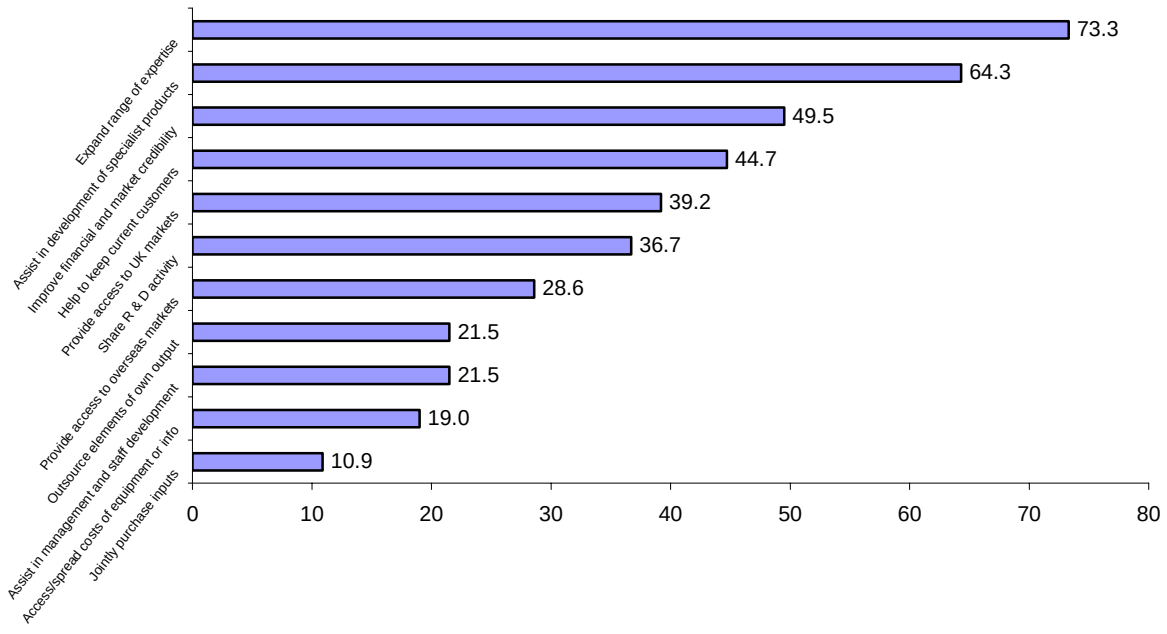


Figure 2.4 explores the reasons given for collaboration.

Figure 2.4 Reasons for collaboration - (% of collaborating firms giving these reasons) - NI



The five most important reasons for collaborative arrangements were to help expand the range of expertise and products (73%), to assist in the development of specialist services

and products required by customers (64%), to improve financial market credibility (50%), to help keep current customers (45%) and to provide access to UK markets (39%). These are very similar to the reasons given by firms in the GB survey.

3 The Labour Force

3a Employment structure

The first two columns of Table 3.1 give the skill structure of the total employment of the firms surveyed for the GB and NI samples. The earlier report, CBR SME Benchmarking Survey for Northern Ireland, was able to use finer employment categories, but the 2004 CBR survey included only broader groupings. For all firms, 10% (12% GB) of workers were technologists or higher professionals and 11% (16% GB) were managers. This broad similarity is examined further below in the various size groups.

The other columns of Table 3.1 show that this employment structure varies considerably between the different types of NI firms. Service firms and newer firms have higher proportions of technologists and higher professionals.

Table 3.1 Employment structure: proportion of workers in each skill category

Skill category	GB 2004 All	NI 2004 All	Northern Ireland			
			Manu-facturing	Services	Older	Newer
Technologists and higher professionals	12.1	9.7	2.6	28.0	7.6	16.5
Managers	16.0	11.3	10.7	12.8	11.0	12.1
All other employees	71.9	79.0	86.7	59.2	81.4	71.4
Total employment	14,603	10,859	7,832	3,027	8,141	2,652
No. of firms	728	709	382	327	421	280

Table 3.2 shows the employment structure across the NI size groupings in comparison with those in the GB sample. Micro firms have higher proportions of technologists and higher professional staff, and higher proportions of managerial staff than small and medium sized-firms. These differences no doubt reflect the higher levels of specialisation in the activities of very small firms and are very similar to the findings for the GB sample.

Table 3.2 Employment structure: proportion of workers in each skill category

Skill category	NI 2004			GB 2004		
	Micro	Small	Medium	Micro	Small	Medium
Technologists and higher professionals	14.2	9.6	6.5	15.6	12.5	9.5
Managers	14.7	11.4	8.1	27.2	16.0	10.1
All other employees	71.0	79.0	85.4	57.1	71.5	80.3
Total employment	1,664	7,076	2,119	2,091	8,523	3,989
No. of firms	401	292	16	399	304	25

3b Recruitment difficulties

Our surveys have shown that SMEs regard skilled labour shortages as a key constraint. The proportion of firms with recruitment difficulties in any grade is shown in the bottom row in Table 3.3. More than half of all the firms reported difficulties in recruiting for one or other of the skill categories they employed – a remarkably similar figure to the rest of the UK (figures here are for the CBR 2002 survey since this question was not asked in 2004). There are wide variations in recruitment difficulties between categories of skills so that inter-firm differences in overall recruiting difficulties are explained, at least in part, by differences in skill structure of their workforce. Overall, the highest rates of recruitment difficulties are for skilled manual workers (53%), followed by technologists and higher professionals (44%) and technicians and lower professionals (36%). Fewer firms had recruitment difficulties with clerical and administrative staff (16%) and managers, but perhaps a surprisingly high proportion (35%) found it difficult to recruit semi-skilled and unskilled manual workers.

Table 3.3 Recruiting difficulties in firms employing specific skill categories

Skill category	GB 2002 - All	NI 2004 - All	-- Northern Ireland -- Manu-facturing	Services
Semi-skilled and unskilled	28.4	34.9	35.7	31.4
Skilled manual	51.1	52.9	52.1	57.1
Clerical and administrative	12.8	15.5	15.3	15.8
Technicians and lower professionals	33.0	35.5	39.1	32.8
Technologists and higher professionals	39.0	43.8	28.6**	52.5
Managers	18.6	19.7	18.3	22.7
All Grades	55.1	53.4	55.2	51.2

Asterisks in first row of a group indicates statistically significant differences between the types of businesses (* significant at the 10% level, ** significant at the 5% level)

The differences in recruiting difficulties across firm size are shown in Table 3.4. The bottom row also shows that recruitment difficulties increased with the firm size - 70% of the medium sized firms had recruitment difficulties compared to 43% of the micro firms. Micro and small NI firms had somewhat higher recruiting difficulties than their GB counterparts, particularly in the case of semi-skilled and unskilled manual workers and for technologists and higher professionals.

Table 3.4 Recruiting difficulties in firms employing specific skill categories

	---------- NI 2004 ----------			---------- GB 2002 ----------		
Skill category	Micro	Small	Medium	Micro	Small	Medium
Semi-skilled and unskilled	32.7	36.2	35.7	23.4	28.7	31.9
Skilled manual	47.2	56.1	61.5	47.3	50.4	57.2
Clerical and administrative	16.4	15.5	5.6	10.5	13.5	13.5
Technicians and lower professionals	34.9	33.3	57.1	32.2	31.2	38.0
Technologists and higher professionals	50.0*	41.4	11.1	22.3**	40.5	47.7
Managers	16.2	21.5	26.3	7.7**	19.5	27.5
All Grades	42.7**	65.9	70.0	36.5**	61.0	72.1

Asterisks in first row of a group indicates statistically significant differences between the types of businesses (* significant at the 10% level, ** significant at the 5% level)

3c Labour turnover

Table 3.5 shows that NI firms reported similar levels of labour turnover to the GB sample. Micro firms have highly stable workforces with 62% of firms with rates of labour turnover of 5% of less. But this stability declines with the size of firms and only about 46% of small and medium-sized firms have such low rates of labour turnover. Micro firms have a significantly lower proportion of firms with less than 1% labour turnover than found in the GB sample (again, the figures shown here are for the 2002 survey), but small firms have a stability closer to their GB counterparts.

Table 3.5 Rates of labour turnover

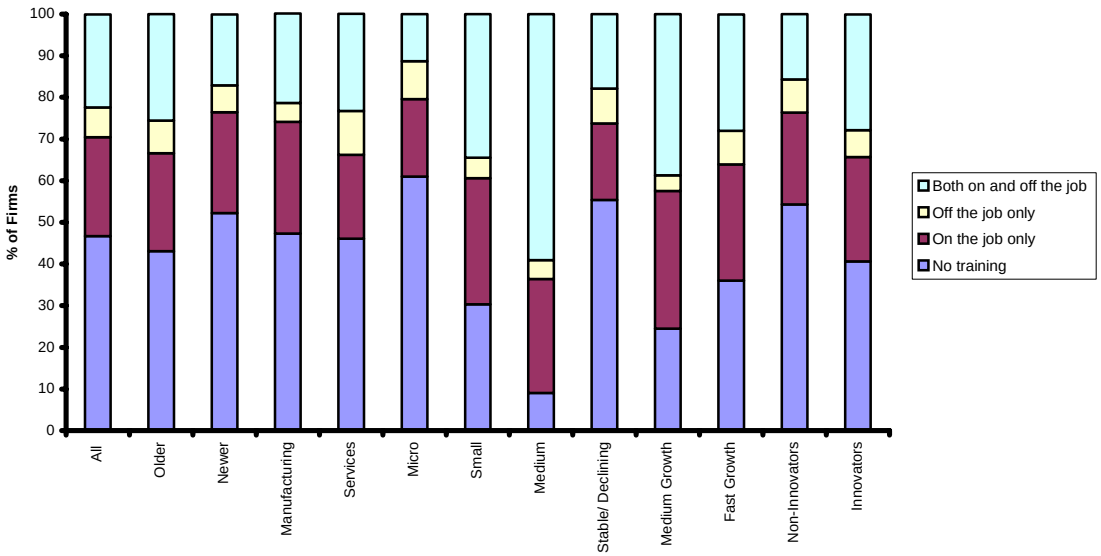
	---------- NI 2004 ----------			---------- GB 2002 ----------		
% rate of labour turnover	Micro	Small	Medium	Micro	Small	Medium
Less than 1%	59.9**	21.6	4.2	70.3**	22.3	5.1
1 to 5	2.1	23.8	41.7	6.6	37.0	35.8
6 to 10	5.2	26.0	29.2	4.5	24.4	31.2
11 to 20	12.2	16.8	16.7	7.5	9.4	16.6
More than 20%	20.7	11.7	8.3	11.2	7.0	11.2
No of firms	329	273	24	671	1,012	313

Asterisks in first row of a group indicates statistically significant differences between the types of businesses (* significant at the 10% level, ** significant at the 5% level)

3d Training provision

Faced with difficulties in recruiting, the overcoming of skill shortages requires firms to train. Figure 3.1 shows that almost 53% of the firms provide formal training. It also shows how the number of firms providing training rises with firm size, from 39% of micro firms to 91% of medium sized firms, and these are identical to the percentages found for the rest of the UK. A higher proportion of innovators and older firms also train. Although fewer stable and declining firms carry out formal training, more medium growth than fast growth firms train.

Figure 3.1 Provision of Formal Training - NI*



*Note this question was not asked in GB 2004 survey

3e Human Resource Management

To explore their increased functional flexibility we asked the firms whether they used total quality management, quality circles, job rotation/multi-skilling and performance related pay. Quality circles are intended to bring together workers and managers to discuss production problems for the purpose of securing employee commitment and to draw upon workers accumulated skill and knowledge to improve performance and save costs. Total quality management (TQM) may include quality circles and other measures for securing employee participation, but it has a broader engineering base and is strongly oriented towards meeting consumer requirements by greater production flexibility and continuous improvement. Job rotation and multi-skilling are key concepts in HRM and form the basis for flexible working, inter-changeability and team working. Performance related pay is a means of more closely integrating the interests of the business and its employees.

Examination of the data shows that relatively few firms used quality circles and the large majority that did, used them together with TQM. It was therefore decided to construct a measure, labelled *quality management*, which includes the use of quality circles alone, TQM alone, and both together.

The uses of these HRM practices are summarised in Table 3.6. Overall, 32% (41% GB) of the businesses use job rotation and multi-skilling, 30% (31% GB) use quality management and 28% (33% GB) have performance related pay. Their use is more prevalent in manufacturing than services, especially job rotation and multi-skilling, adopted by 41% of the manufacturing firms. Innovators also took a lead over non-innovators in developing human resource management practices that give them functional flexibility.

Table 3.6 Use of quality management, job rotation/multi-skilling and performance related pay

% using:	GB 2004 - All	NI 2004 - All	Northern Ireland			
			Manu-facturing	Services	Non-innovators	Innovators
Quality management	30.6	29.5	30.9	27.9	21.0**	36.3
Job rotation/multi-skilling	40.5**	31.9	41.0**	21.4	23.9**	38.4
Performance related pay	32.5**	27.5	27.4	27.7	19.4**	33.8
No. of firms	767	701	375	326	305	394

Asterisks in first row of a group indicates statistically significant differences between the types of businesses (* significant at the 10% level, ** significant at the 5% level)

The deployment of the HRM methods is also directly related to size and this is explored in Table 3.7 below. There is a marked rise in the use of each of these HRM practices with firm size in both the NI and the GB samples. In general, when matched by size and sector, their use is somewhat lower amongst NI firms than amongst their GB counterparts.

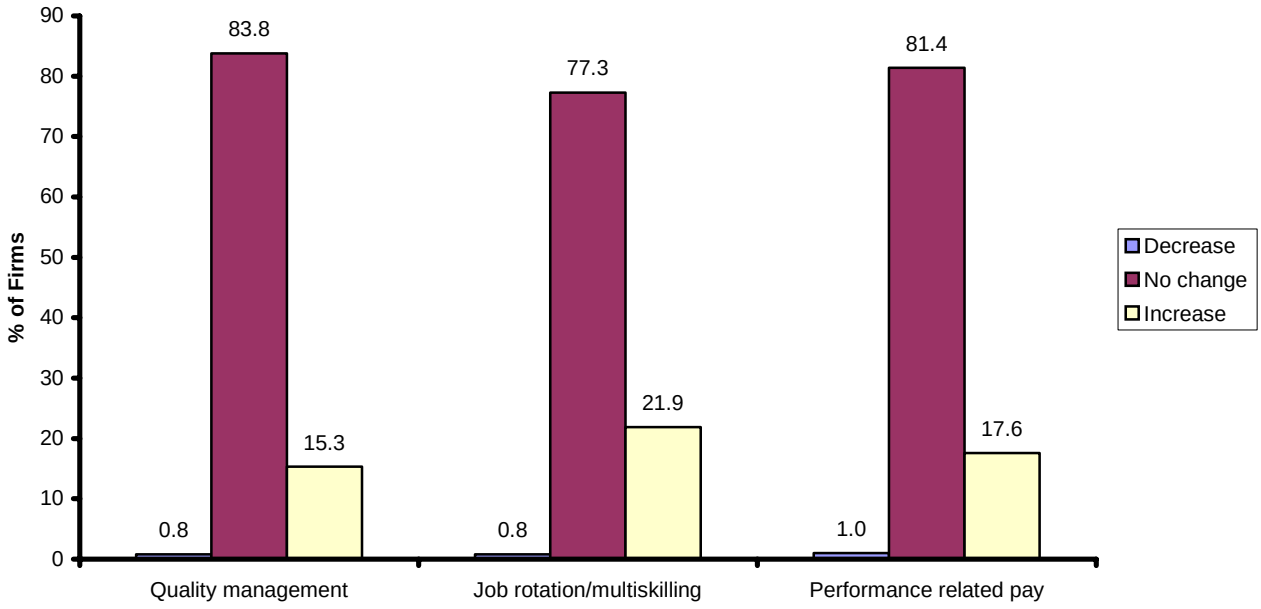
Table 3.7 Use of quality management, job rotation/multi-skilling and performance related pay

	NI 2004			GB 2004		
% using:	Micro	Small	Medium	Micro	Small	Medium
Quality management	18.2**	42.4	53.8	23.5**	37.3	69.2
Job rotation/multi-skilling	20.1**	45.7	50.0	29.6**	52.9	73.1
Performance related pay	18.0**	37.6	58.3	27.0**	37.3	65.4
No. of firms	385	290	26	430	311	26

Asterisks in first row of a group indicates statistically significant differences between the types of businesses (* significant at the 10% level, ** significant at the 5% level)

The firms were also asked whether their use of HRM practices had changed since 2001 and the responses to this question are reported in Figure 3.3. Figure 3.4 shows that for the large majority of the firms there has been no change in HRM practices. The main finding revealed by Figure 3.2 is the net increase in the use of these practices. The net increase is 18% for performance related pay, 15% for quality management and 22% for job rotation and multi-skilling. These also reflect the changes observed in the rest of the UK.

Figure 3.2
Changes in human resource management practices - NI



4 Innovation Activity

4a Innovation Outputs

Table 4.1 summarises our basic data on innovation outcomes and intentions. The first column shows that over half of the sample report having introduced a product, or process innovation in the past three years. This is somewhat lower than the proportion in the GB sample – 54% compared with 62% for GB 2002 (and 65% for the matched GB 2004 sample). As found for the GB sample, the proportion of innovating firms is higher amongst manufacturing, newer and fast growing firms.

We can also look at innovation intentions (but can compare these only with GB2002). Table 4.1 analyses these and reveals some persistence in the pattern of innovation activity. Thus, a comparison of columns one and two shows that groups with relatively high innovation outputs in the past have relatively high proportions of firms intending to innovate in the future. Moreover, this persistence is largely the result of firms which innovated in the past intending to continue in the future. This is revealed in the third column, which shows that, for the sample as whole, over 80% of firms innovating in the past intend to do so in the future. These proportions varied little across our broad sectors and age groups.

Table 4.1 Product and process innovation activity and intentions

% of firms	introduced product or process innovation in last 3 years	intending to introduce an innovation in next 3 years	innovated in last three years and intend to introduce an innovation in next 3 years
GB 2002 - All	62.2	63.6	83.1
NI 2004 - All	54.4	58.8	81.0
Northern Ireland Groups			
Manufacturing	60.1**	65.6**	81.1
Services	46.6	49.0	80.6
Older	52.3*	53.2**	78.6
Newer	58.4	66.5	84.0
Stable/Declining	47.4*	48.3**	73.5*
Medium growth	59.7	67.5	89.7
Fast growth	67.8	67.2	82.4

The asterisks in the first row of a group indicate a statistically significant difference between members of that group (** = significant at the 5% level or better).

There is a significantly positive association between product innovation and size in both the NI sample and the rest of the UK. In terms of the proportion of firms that report an achieved innovation over the past three years, we find that 48% (47% GB 2002, 48% GB 2004) for the micro firms, 62% (67% GB 2002, 75% GB 2004) for the small firms and 77% (80% GB 2002, 81% GB 2004) for the medium-sized firms. Bigger means better in both samples and NI small firms lag somewhat behind their GB equivalents.

The intentions to introduce innovations in the near future follow a broadly similar pattern, but NI micro and small firms are more optimistic relative to the past than their GB 2002 counterparts (this question was not included in CBR 2004 survey).

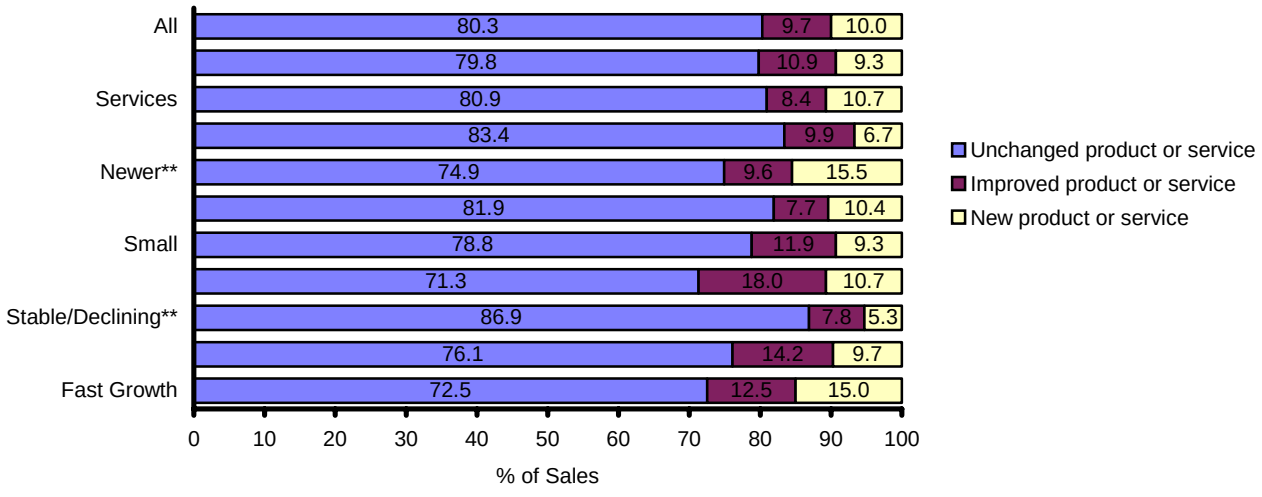
Table 4.2 Product and process innovation activity and intentions

% of firms	Introduced product or process innovation in last 3 years	Intending to introduce an innovation in next 3 years	Innovated in last three years and intend to introduce an innovation in next 3 years
NI 2004			
Micro	48.1**	50.9**	76.3**
Small	61.8	68.4	85.4
Medium	76.9	72.0	89.5
GB 2002			
Micro	47.4**	45.3**	70.9**
Small	67.0	70.6	86.4
Medium	80.2	82.3	90.5

The asterisks in the first row of a group indicate a statistically significant difference between members of that group (** = significant at the 5% level or better).

Figure 4.1 provides a breakdown of sales into that due to unchanged, improved and new products or services. This is an important measure since it goes beyond the incidence of innovation to provide an innovation output measure of product innovation at firm level. For the sample as a whole around 10% of sales are new products or services; and this figure rises to over 19% if we include both new and significantly improved products and services. The most striking difference across the groups is for the growth categories where fast growth is associated with the innovation content of the products. The same can be said for medium-sized firms and for newer firms which both have a markedly higher proportion of their sales due to new, or improved products. These patterns of intensity broadly echo the findings based on incidence discussed above.

Figure 4.1
Distribution of sales by novelty of product or service - NI

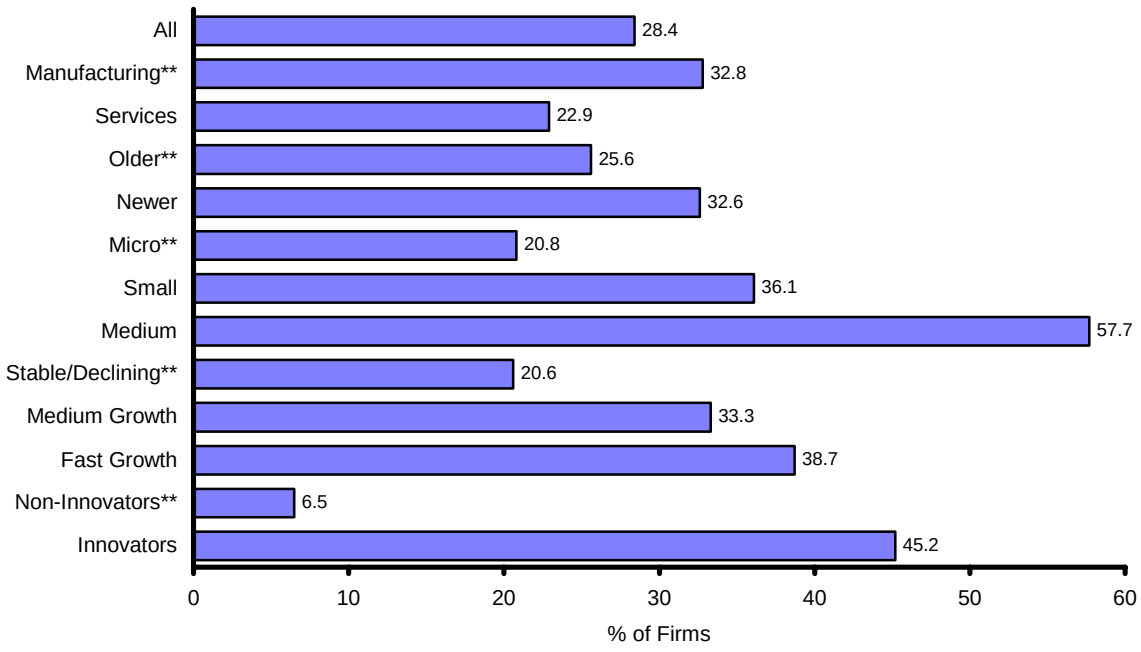


4b Innovation Inputs

In seeking to meet their innovative objectives our sample firms combine R&D expenditures with R&D employment and sources of information relevant to innovation from inside and outside the firm. Figure 4.2 shows the proportion of firms engaging in R&D in the previous year. Only 28% of the sample reports some R&D activity in the previous year compared with 40% for the GB 2002 sample. This is misleading since it does not take account of size and sectoral differences. If we compare the matched 2004 samples we find no difference overall with both having 28% with R&D activity. There are differences across the size groups: 21% for micro compared with 19% for GB 2004; 36% for small compared with 37% for GB 2004; and 58% for medium-sized compared with 64% for GB 2004.

In addition, as we might expect, the proportions are significantly higher in manufacturing, newer, fast growth and innovative firms.

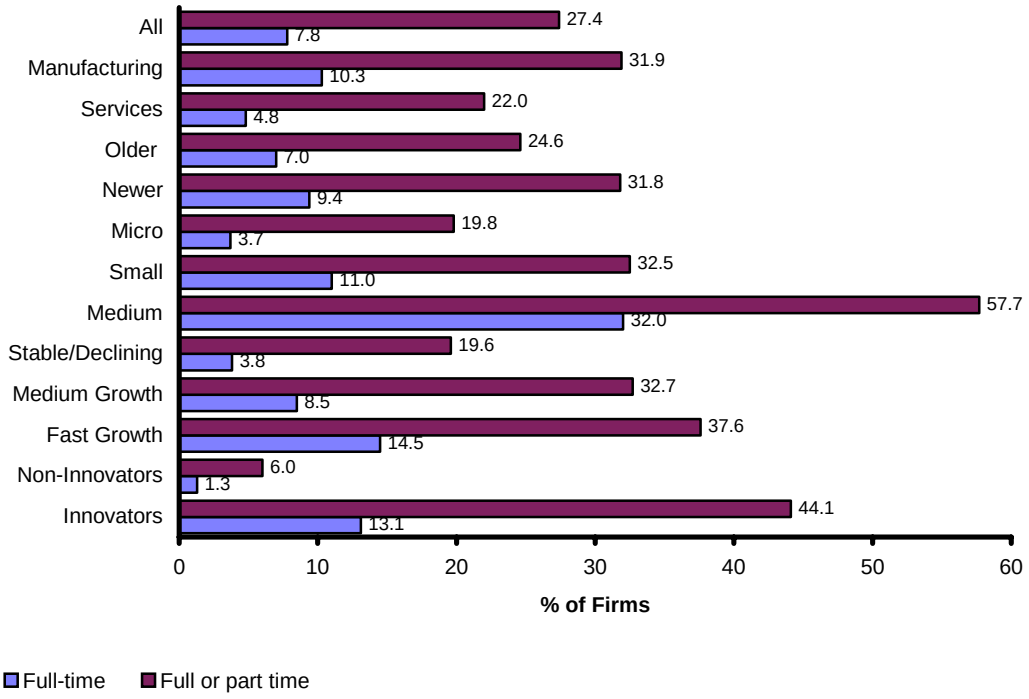
Figure 4.2
Proportion of firms engaging in R&D last year - NI



A similar pattern emerges in Figure 4.3 that reports the proportion of firms with staff engaged in R&D. The proportions with full-time, or part-time, 27%, and the proportion with full-time, 8%, are lower than the equivalent 40% and 16% found for the GB 2002 sample. The proportions with either full or part-time staff are 20% (20% GB 2002, 18% GB 2004) for micro; 33% (47% GB 2002, 37% for GB 2004) for small; and 58% (62% GB 2002, 64% for GB 2004) for medium-sized firms. Therefore the differences are not significant after allowing for size and sector differences.

In addition, as we found above, the proportions of both full-time and any R&D staff are significantly higher in manufacturing, newer, fast growth and innovative firms – similar to the results of the CBR surveys.

Figure 4.3 Percentage of firms with staff engaged in R&D - NI



Small and medium-sized enterprises derive ideas for information inputs into their innovative activity not only from their own investments in R&D but also from a wide range of other sources. Here we can explore sources of information for innovating firms specifically. Table 4.3 reports the proportion of innovators that scored the source of information as very significant, or crucial. In each part of the table the first column shows the findings for all innovators. It is apparent that NI firms score all sources of external information as more important than do the GB firms.

Information from within the firm is the most important (58%), but in the NI sample, it is followed closely by clients, or customers (50%) and by suppliers (39%). The equivalent proportions for the GB sample are 65%, 36%, and 29%. Although the absolute proportions differ, the ranking in importance of these information sources is very much the same in NI and the rest of the UK.

Table 4.3 also provides a breakdown by size of firm. This shows that the pattern of relative importance is broadly consistent across all size groups and consistent with previous CBR surveys. However, unlike what was found for the GB 2002 sample, the smallest firms do not rate almost every source as less significant, but in general the differences are not statistically significant.

Table 4.3 Importance of sources of information for innovation by size of firm (% very significant or crucial)

	---------- NI 2004 ----------				---------- GB 2002 ----------			
Sources	NI - All	Micro	Small	Medium	GB - All	Micro	Small	Medium
Internal:								
Within the firm	57.5	51.5**	64.0	75.0	65.1	50.3**	69.4	76.2
Within the group	20.4	15.3**	25.0	46.7	12.5	6.3**	11.9	23.8
External:								
Suppliers of equipment, materials and components	38.6	37.2	40.1	41.7	28.7	26.5	31.1	25.6
Clients or customers	49.6	46.7	53.2	54.2	36.0	31.3*	37.8	38.5
Competitors in your line of business	22.2	18.9**	27.6	8.3	13.1	11.6	13.4	14.7
Consultancy firms	9.3	7.9	11.4	4.2	3.9	2.8	4.2	4.8
Universities/higher education institutes	9.1	7.4	10.8	16.7	3.1	2.3	2.9	4.8
Professional conferences, meetings, professional journals	12.8	15.1	10.1	8.3	4.4	5.6	4.0	3.7
Fairs/exhibitions	18.0	16.1	21.2	8.3	8.7	7.7	8.7	10.3
Trade associations, chambers of commerce	7.2	7.7	7.1	0.0	3.8	3.7	4.0	3.7
Computer-based information networks	19.9	21.4	17.5	25.0	8.2	9.5	8.2	6.2

Asterisks in the first column indicate statistically significant differences between the types of business grouped by size (** = significant at the 5% level or better).

4c Constraints on Innovation

Table 4.4 provides an analysis of the main barriers to innovation identified by all firms in the NI sample in comparison with the equivalent findings for the GB 2002 sample. For the GB sample the highest proportions of firms reporting a barrier as crucial or very significant are in the 26-29% range. These barriers are lack of appropriate sources of finance, innovation costs too high, and pay-off period too long. Amongst factors internal to the firm lack of innovation capacity and skilled personnel are most significant. A variety of regulatory factors is cited by 20% of the sample and around 16% cite lack of consumer responsiveness as a crucial or very significant barrier. This pattern is common across the EU and is also reflected in the findings for the NI sample. The most notable difference is the higher proportion of firms citing finance and costs as the source of their difficulties amongst NI firms. For example 43% of the NI sample give lack of finance as a constraint on innovation is much higher than the 27% given by the GB sample.

The split between innovators and non-innovators is very revealing. Innovators consistently identify more frequently than do non-innovators the 'economic' group of factors (particularly innovation costs and finance) as barriers. The same is also true for most of the firm level barriers for which innovators identify significantly higher barriers. Non-innovators are more likely to be concerned about the firm's lack of innovation potential, the lack of need to innovate due to past innovations (i.e. more than three years earlier) and organisational rigidities as barriers to innovation.

Manufacturing firms generally have more concerns than business service firms – innovation costs and lack of information about technologies are notable different. On the

other hand, business service firms find the lack of customer responsiveness to innovation as a higher barrier than manufacturing firms.

Table 4.4 Barriers to innovation (% very significant or crucial)

Factors	GB 2002	NI 2004	Northern Ireland			
	All	All	Non-Innovator	Innovator	Manu-facturing	Services
Economic:						
Excessive perceived risk	22.5	22.6	20.0	24.3	24.2	20.6
Lack of appropriate sources of finance	27.1	42.5	34.1**	47.6	44.0	40.5
Innovation costs too high	28.6	37.7	31.5**	41.5	41.3**	32.9
Pay-off period of innovation too long	28.3	28.6	26.3	29.9	30.8	25.6
Firm level:						
Firm's innovation potential (e.g. R&D etc.) too small	21.8	22.9	23.7	22.4	22.2	23.6
Lack of skilled personnel	19.6	23.1	19.3*	25.4	24.2	21.6
Lack of information on technologies	8.6	13.4	10.0**	15.4	16.6**	8.6
Lack of information on markets	11.6	17.0	13.3**	19.3	17.1	16.6
Innovation costs hard to control	15.4	20.3	15.9**	22.9	20.8	19.6
Organisational rigidities	7.0	11.1	13.7*	9.5	12.7	9.0
Other reasons:						
Lack of technological opportunities	12.0	11.5	11.9	11.3	13.0	9.3
No need to innovate due to earlier innovations	5.6	7.7	10.0*	6.3	7.1	8.6
Innovation too easy to copy	11.6	12.4	11.1	13.2	12.0	13.0
Legislation, norms, regulations, standards, taxation	20.6	21.9	21.9	22.0	22.7	20.9
Lack of consumer responsiveness to innovation	16.5	15.3	15.6	15.2	11.0**	20.9
Uncertainty in timing of innovation	10.5	11.5	10.4	12.2	11.5	11.3

Asterisks in the first column of a group indicate statistically significant differences between the types of business grouped by industry or innovating experience (* = significant at the 10% level, ** = significant at the 5% level or better).

An interesting picture emerges when we sub-divide the sample by size groups. This is done in Table 4.5. In general the overall rankings of constraints are pretty much the same in each of the sub-groups. Lack of appropriate sources of finance, innovation costs too high, and pay-off period too long regularly record the highest proportions, followed by factors internal to the firm in which lack of innovation capacity and skilled personnel are most frequently cited. The higher constraints due to finance availability and innovation costs in the NI sample when compared with the rest of the UK are found in each of the size groups.

Table 4.5 Barriers to innovation by size of firm (% very significant or crucial)

	NI 2004			GB 2002		
Factors	Micro	Small	Medium	Micro	Small	Medium
Economic:						
Excessive perceived risk	21.9	23.4	25.0	23.6	22.9	19.3
Lack of appropriate sources of finance	44.6	40.7	29.2	28.1	28.0	22.4
Innovation costs too high	34.2*	42.7	33.3	30.6**	29.9	20.9
Pay-off period of innovation too long	25.3*	33.2	25.0	29.2	27.8	28.0
Firm level:						
Firm's innovation potential (e.g. R&D etc.) too small	24.0	22.4	12.5	23.0**	22.7	16.5
Lack of skilled personnel	20.4	26.1	29.2	16.4**	21.3	20.9
Lack of information on technologies	10.7*	16.3	20.8	7.7**	10.2	5.3
Lack of information on markets	14.8	19.7	20.8	9.7**	13.9	8.1
Innovation costs hard to control	18.1*	24.1	8.3	15.9*	16.4	11.2
Organisational rigidities	10.2	12.9	4.2	8.3	6.6	5.6
Other reasons:						
Lack of technological opportunities	12.2	11.5	0.0	11.6**	13.5	8.4
No need to innovate due to earlier innovations	8.9	6.4	4.2	6.5	5.7	3.7
Innovation too easy to copy	11.5	14.2	4.2	11.4	12.2	10.0
Legislation, norms, regulations, standards, taxation	21.7	23.1	12.5	20.9	21.5	17.4
Lack of consumer responsiveness to innovation	16.8	12.9	20.8	17.0	16.6	15.3
Uncertainty in timing of innovation	10.5	13.6	4.2	12.1	9.4	10.9

Asterisks in the first column of a group indicate statistically significant differences between the types of business grouped by size (* = significant at the 10% level, ** = significant at the 5% level or better).

Taken as a whole these results suggest a lack of appropriate finance as a particular barrier in high-tech services. They also point to difficulties in the level of costs and their management, and the timing of innovation and its payback period as problems for high-tech manufacturing.

5 Government Business Support

Table 5.1 allows an assessment of the level of use of government support schemes for business. This can be compared with Table 5.1 for other sources of advice. The programmes with the highest use are those from Invest NI, not surprising perhaps since part of the sample was drawn from Invest NI client firms. The usage of the various business support schemes from Invest NI ranges from: 24.2% for development/growth; 15.7% for training; 14.9% for technology and E-business; 13.7% for trade development; 11.6% for start-up; to 11.4% for R&D support. The next most common schemes are ENI support at 5.2% and EU funding schemes at 4.1% of sample firms.

There are some significant differences by firm type. Manufacturing firms are significantly more likely to have received all forms of Invest NI support, whilst business service firms are more likely to have taken up the DTI Small Firms Loan Guarantee Scheme. Newer firms are also more likely to have used Invest NI, particularly in relation to start-up, development/growth, training and trade development support. Newer firms are also significantly more likely to have used ENI support and the DTI's SFLGS. Innovators have used all forms of advice and support more than non-innovators, generally the difference is large and statistically significant.

Table 5.1 Financial Assistance or Advice from Central Government Business Support Schemes - Invest NI Clients (% of respondents reporting use, multiple responses allowed)

Government Business Support Schemes	All	All	Manu-facturing	Services	Older	Newer	Non-innovators	Innovators
	N	%	%	%	%	%	%	%
Knowledge Transfer Partnerships (KTP)	26	6.6	5.9	8.2	8.8	4.3	3.4	8.0
Invest NI Start up support	71	18.1	14.0**	27.0	4.4**	33.7	15.5	19.2
Local Enterprise Agency (ENI) support	23	5.9	4.4	9.0	2.9**	9.2	6.0	5.8
Invest NI development/growth support	176	44.8	44.3	45.9	40.2**	50.5	37.1*	47.8
Invest NI training support	110	28.0	28.0	27.9	26.0	31.0	21.6*	30.4
Invest NI R&D support	91	23.2	25.8*	17.2	25.5	21.2	11.2**	28.3
Invest NI technology & E-business support	93	23.7	27.3*	15.6	27.0*	19.6	20.7	25.0
Invest NI trade development support	101	25.7	26.2	24.6	22.1	29.3	18.1**	29.0
DTI Small Firms Loan Guarantee Scheme	22	5.6	2.6**	12.3	2.0**	9.8	2.6	6.9
European funding schemes	28	7.1	7.4	6.6	6.9	7.6	8.6	6.5
SMART	12	3.1	2.6	4.1	2.9	3.3	0.0**	4.3
Other	22	5.6	5.5	5.7	5.4	5.4	5.2	5.8

Asterisks in the first column of a group indicate statistically significant differences between the types of businesses grouped by industry, age or innovation. (* significant at the 10% level, ** significant at the 5% level, respectively).

Table 5.1 (continued) Financial Assistance or Advice from Central Government Business Support Schemes - Invest NI Clients

(% of respondents reporting use, multiple responses allowed)

Government Business Support Schemes	Micro	Small	Medium	Stable/ Declining	Medium growth	Fast growth
	%	%	%	%	%	%
Knowledge Transfer Partnerships (KTP)	5.1*	6.6	17.4	6.6	7.0	11.3
Invest NI Start up support	29.7**	10.4	8.7	11.3	9.9	16.5
Local Enterprise Agency (ENI) support	11.4**	2.4	0.0	5.7*	0.0	7.2
Invest NI development/growth support	42.4	46.7	43.5	40.6	53.5	51.5
Invest NI training support	14.6**	35.8	47.8	19.8**	35.2	41.2
Invest NI R&D support	13.9**	26.9	52.2	20.8	21.1	30.9
Invest NI technology & E-business support	19.6	26.9	21.7	18.9	25.4	32.0
Invest NI trade development support	25.3	24.5	39.1	24.5	29.6	32.0
DTI Small Firms Loan Guarantee Scheme	7.0	4.7	4.3	3.8	4.2	8.2
European funding schemes	7.6	7.1	4.3	7.5	5.6	6.2
SMART	3.8	2.8	0.0	1.9	2.8	4.1
Other	7.6	3.8	8.7	3.8	4.2	3.1

Asterisks in the first column of a group indicate statistically significant differences between the types of businesses grouped by size or growth. (* significant at the 10% level, ** significant at the 5% level, respectively).

Table 5.2 Financial Assistance or Advice from Central Government Business Support Schemes - Invest NI Non-Clients

(% of respondents reporting use, multiple responses allowed)

Government Business Support Schemes	All	All	Manu-facturing	Services	Older	Newer	Non-innovators	Innovators
	N	%	%	%	%	%	%	%
Knowledge Transfer Partnerships (KTP)	4	1.0	1.8	0.4	0.7	1.6	1.2	0.6
Invest NI Start up support	25	6.3	5.5	6.8	2.2**	15.1	5.3	7.8
Local Enterprise Agency (ENI) support	15	3.8	4.9	3.0	1.5**	8.7	2.0**	6.5
Invest NI development/growth support	19	4.8	6.7	3.4	3.0**	8.7	3.3*	7.1
Invest NI training support	19	4.8	7.4*	3.0	3.0**	8.7	2.0**	9.1
Invest NI R&D support	2	0.5	1.2	0.0	0.4	0.8	0.4	0.6
Invest NI technology & E-business support	32	8.0	12.3**	5.1	6.7	11.1	4.9**	12.3
Invest NI trade development support	7	1.8	2.5	1.3	1.5	2.4	1.2	2.6
DTI Small Firms Loan Guarantee Scheme	1	0.3	0.0	0.4	0.0	0.8	0.4	0.0
European funding schemes	3	0.8	1.2	0.4	0.7	0.8	0.4	1.3
SMART	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	9	2.3	2.5	2.1	1.1**	4.8	2.0	2.6

Asterisks in the first column of a group indicate statistically significant differences between the types of businesses grouped by industry, age or innovation. (* significant at the 10% level, ** significant at the 5% level, respectively).

Table 5. 2 (continued) Financial Assistance or Advice from Central Government Business Support Schemes - Invest NI Non-Clients

(% of respondents reporting use, multiple responses allowed)

Government Business Support Schemes	Micro	Small	Medium	Stable/ Declining	Medium growth	Fast growth
	%	%	%	%	%	%
Knowledge Transfer Partnerships (KTP)	0.7	1.9	0.0	1.2	2.4	0.0
Invest NI Start up support	8.3**	0.9	0.0	2.4	2.4	2.6
Local Enterprise Agency (ENI) support	4.8	0.9	0.0	2.4	2.4	6.5
Invest NI development/growth support	4.2	6.5	0.0	1.8**	4.9	9.1
Invest NI training support	3.8	7.4	0.0	2.4	4.9	7.8
Invest NI R&D support	0.3	0.9	0.0	0.0	0.0	1.3
Invest NI technology & E-business support	5.9**	13.9	0.0	6.1	12.2	10.4
Invest NI trade development support	1.4	2.8	0.0	2.4	0.0	1.3
DTI Small Firms Loan Guarantee Scheme	0.3	0.0	0.0	0.0	0.0	0.0
European funding schemes	1.0	0.0	0.0	0.6	0.0	1.3
SMART	0.0	0.0	0.0	0.0	0.0	0.0
Other	2.1	2.8	0.0	1.2	2.4	2.6

Asterisks in the first column of a group indicate statistically significant differences between the types of businesses grouped by size or growth. (* significant at the 10% level, ** significant at the 5% level, respectively).

Growing businesses, and particularly fast growth firms, are more likely to have used support from the various Invest NI schemes and from ENI. The picture is more subtle across the size groups. Invest NI start-up support and ENI support were used by a significantly higher proportion of micro firms. For the other Invest NI support schemes there was a significant rise in their use as one moves from micro to small and on to medium-sized businesses; and several schemes reached between a quarter and a third of businesses of this size. Knowledge Transfer partnerships also exhibited a marked increase with firm size and 15.4% of medium-sized businesses made use of them.

Satisfaction levels with government schemes of those who used theses schemes is revealed in Table 5.2. The levels are generally very high with 77% to 94% saying that they are satisfied, or very satisfied. The satisfied proportions are higher than the CBR has found for similar GB surveys. Invest NI has both the lowest, 76.6% for start-up support, and the highest, 93.7% for training support, satisfaction levels; and those with more detailed knowledge of these schemes may be better placed to understand this variation.

Although there are some differences in satisfaction between the various groups of firms, few are statistically significant. Manufacturing firms have higher satisfaction levels for Invest NI R&D support. Innovators are more satisfied with Invest NI in its development/growth, training and trade development support. Fast growth firms are less satisfied with ENI support. Interestingly, there are no significant differences across the size groups in the satisfaction with theses schemes for those who have used them.

Table 5.3 Satisfaction with Business Support Schemes - Invest NI Clients
(% of users who are satisfied or very satisfied +)

Government Business Support Schemes	All	All	Manu-facturing	Services	Older	Newer	Non-innovators	Innovators
	N	%	%	%	%	%	%	%
Knowledge Transfer Partnerships (KTP)	23	78.3	71.4	88.9	68.8	100.0	50.0	84.2
Invest NI Start up support	68	80.9	80.6	81.3	87.5	80.0	83.3	80.0
Local Enterprise Agency (ENI) support	22	81.8	83.3	80.0	83.3	81.3	85.7	80.0
Invest NI development/growth support	163	87.7	85.5	92.5	90.7	86.2	78.9**	90.3
Invest NI training support	104	97.1	95.8	100.0	96.0	98.1	87.5**	100.0
Invest NI R&D support	86	91.9	97.0**	75.0	93.9	89.2	100.0	90.5
Invest NI technology & E-business support	87	90.8	89.9	94.4	92.3	90.9	87.0	92.2
Invest NI trade development support	91	89.0	87.9	92.0	97.6*	85.4	72.2**	93.2
DTI Small Firms Loan Guarantee Scheme	21	85.7	71.4	92.9	75.0	88.2	100.0	83.3
European funding schemes	24	91.7	94.4	83.3	100.0	80.0	90.0	92.9
SMART	9	88.9	100.0	75.0	100.0	66.7	0.0	88.9
Other	20	90.0	84.6	100.0	90.0	88.9	60.0*	100.0

Table 5.3 (continued) Satisfaction with Business Support Schemes - Invest NI Clients
(% of users who are satisfied or very satisfied +)

Government Business Support Schemes	Micro	Small	Medium	Stable/ Declining	Medium growth	Fast growth
	%	%	%	%	%	%
Knowledge Transfer Partnerships (KTP)	83.3	84.6	50.0	83.3	50.0	90.9
Invest NI Start up support	84.1	77.3	50.0	83.3	71.4	80.0
Local Enterprise Agency (ENI) support	76.5	100.0	0.0	100.0	0.0	85.7
Invest NI development/growth support	86.9	89.1	80.0	83.8	94.1	87.5
Invest NI training support	100.0	95.8	100.0	100.0*	91.7	100.0
Invest NI R&D support	84.2	94.5	91.7	100.0	100.0	89.7
Invest NI technology & E-business support	86.2	92.5	100.0	100.0	94.1	86.2
Invest NI trade development support	82.4	93.8	88.9	87.0	94.7	90.0
DTI Small Firms Loan Guarantee Scheme	90.0	80.0	100.0	100.0	100.0	75.0
European funding schemes	87.5	93.3	100.0	100.0	100.0	100.0
SMART	66.7	100.0	0.0	100.0	100.0	100.0
Other	100.0*	87.5	50.0	100.0*	100.0	33.3

Asterisks in the first column of a group indicate statistically significant differences between the types of businesses grouped by size, age, industry, growth or innovation. (* significant at the 10% level, ** significant at the 5% level, respectively).

+ Clients were asked to score satisfaction on a scale of 1-4 with 1 very dissatisfied, 2=dissatisfied, 3=satisfied and 4=very satisfied.

Table 5.4 Satisfaction with Business Support Schemes - Invest NI Non-Clients
(% of users who are satisfied or very satisfied +)

Government Business Support Schemes	All	All	Manu-facturing	Services	Older	Newer	Non-innovators	Innovators
	N	%	%	%	%	%	%	%
Knowledge Transfer Partnerships (KTP)	3	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Invest NI Start up support	23	69.6	100.0*	53.3	25.0*	78.9	72.7	66.7
Local Enterprise Agency (ENI) support	15	66.7	75.0	57.1	25.0*	81.8	100.0	50.0
Invest NI development/growth support	15	86.7	100.0*	60.0	100.0	80.0	83.3	88.9
Invest NI training support	17	70.6	81.8	50.0	50.0	81.8	75.0	69.2
Invest NI R&D support	2	50.0	50.0	0.0	0.0	100.0	0.0	100.0
Invest NI technology & E-business support	30	93.3	89.5	100.0	87.5	100.0	90.9	94.4
Invest NI trade development support	6	100.0	100.0	100.0	100.0	100.0	100.0	100.0
DTI Small Firms Loan Guarantee Scheme	1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
European funding schemes	2	100.0	100.0	0.0	100.0	100.0	100.0	100.0
SMART	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	6	50.0	50.0	50.0	0.0	60.0	66.7	33.3

Table 5.4 (continued) Satisfaction with Business Support Schemes - Invest NI Non-Clients
(% of users who are satisfied or very satisfied +)

Government Business Support Schemes	Micro	Small	Medium	Stable/ Declining	Medium growth	Fast growth
	%	%	%	%	%	%
Knowledge Transfer Partnerships (KTP)	100.0	100.0	0.0	100.0	100.0	0.0
Invest NI Start up support	72.7	0.0	0.0	75.0	0.0	0.0
Local Enterprise Agency (ENI) support	71.4	0.0	0.0	100.0	0.0	60.0
Invest NI development/growth support	88.9	83.3	0.0	100.0**	0.0	100.0
Invest NI training support	70.0	71.4	0.0	50.0	100.0	83.3
Invest NI R&D support	0.0	100.0	0.0	0.0	0.0	100.0
Invest NI technology & E-business support	93.8	92.9	0.0	80.0	100.0	100.0
Invest NI trade development support	100.0	100.0	0.0	100.0	0.0	100.0
DTI Small Firms Loan Guarantee Scheme	0.0	0.0	0.0	0.0	0.0	0.0
European funding schemes	100.0	0.0	0.0	100.0	0.0	100.0
SMART	0.0	0.0	0.0	0.0	0.0	0.0
Other	60.0	0.0	0.0	0.0	0.0	50.0

Asterisks in the first column of a group indicate statistically significant differences between the types of businesses grouped by size, age, industry, growth or innovation. (* significant at the 10% level, ** significant at the 5% level, respectively).

+ Clients were asked to score satisfaction on a scale of 1-4 with 1 very dissatisfied, 2=dissatisfied, 3=satisfied and 4=very satisfied.

6 Profitability and Finance

6a Profitability

The survey included a question about the current pre-tax profits of the firm prior to interest payments and directors emoluments. This enables us to calculate the profit margin, which can then be compared across the various types of firm. The 1999 GB survey revealed a median profit margin of 10.5% for the whole sample and this fell by 2002 to 9.4% and stayed at about this level in the GB 2004 sample. This compares with a finding of 12.5% overall for the matched NI sample, suggesting a higher level of profitability amongst Northern Ireland SMEs particularly in services. When we compare across the groups in the current survey, Figure 6.1 shows that the profit margins are significantly higher for micro and service sector firms; and these findings match those of our GB surveys. We also find that innovators are significantly less profitable than non-innovators and this has been found in all the previous CBR surveys. There are no significant differences between older and newer, or across the size groups.

Figure 6.1
Median Profit Margins 2004 - NI

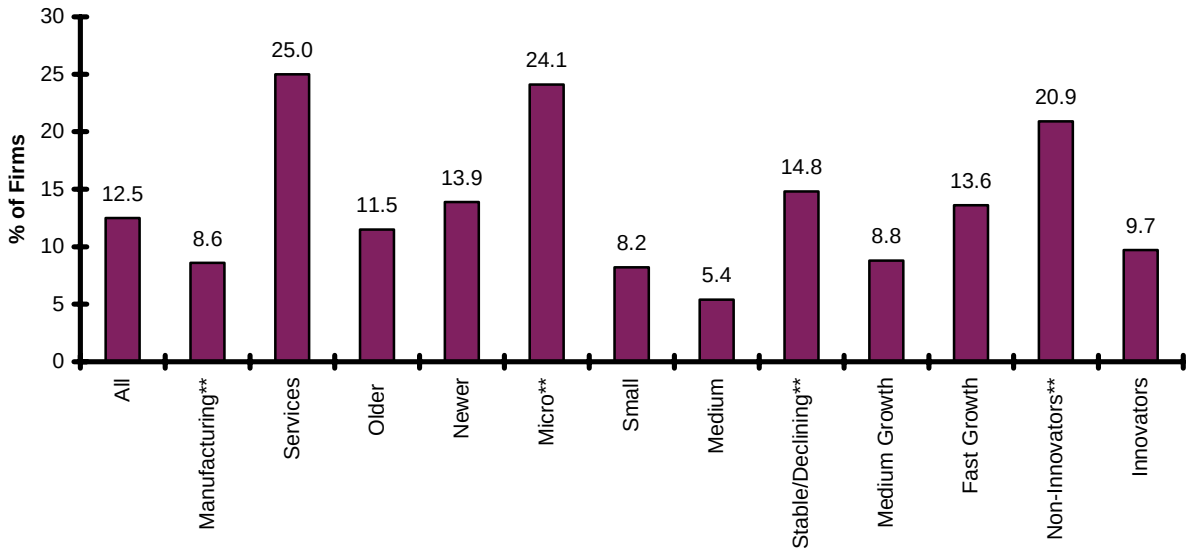


Table 6.1 explores whether the higher profitability of service firms, and of NI firms, results from their smaller average size. The table shows that service sector firms are more profitable than their manufacturing counterparts within every size group in both the GB and NI surveys. The table also reveals the greater profitability of NI firms overall. Since retained profits are a key source of finance, we must bear these results in mind when we examine the external financing of the sample firms.

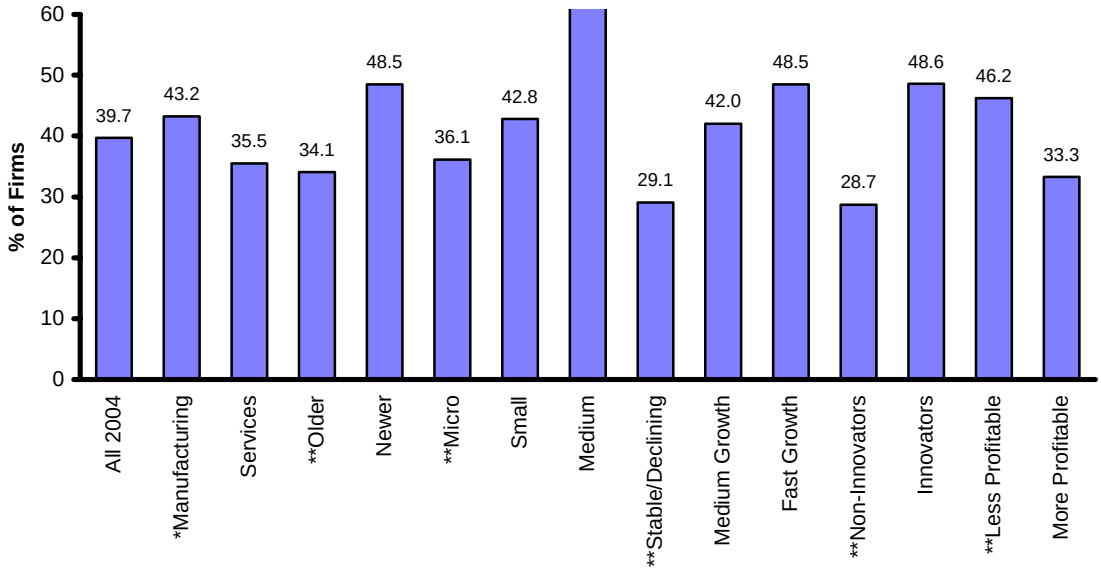
Table 6.1
Median profit margin by size and sector

	NI 2004				GB 2004			
	Micro	Small	Medium	NI - All	Micro	Small	Medium	GB - All
Manufacturing	13.6	7.3	4.7	8.5	12.5	4.3	4.0	6.7
Services	31.0	12.3	6.0	25.0	26.1	6.8	12.2	17.9
All	24.1	8.2	5.4	12.5	18.3	5.0	4.4	9.2
No. of firms	285	238	21	544	346	272	25	643

6b New Finance

The proportion of the 1999 sample firms seeking external finance in the previous two years is shown in the first column of Figure 6.2. About 39% of the sample sought external finance in the period 2002-04, virtually the same as that found for the sample in both the 1999 and 2002 GB surveys, but somewhat higher than the 36% found for GB 2004. The figure shows that manufacturing firms are more likely to seek external finance. The proportion seeking external finance is significantly greater for innovators, for less profitable firms, for newer firms and for larger firms. The need for external finance is also significantly related to growth, with the zero or negative growth firms seeking new external finance much less often. Each of these findings was also found to be the case for the previous GB surveys.

Figure 6.2
Percentage of firms seeking finance in the last two years - NI



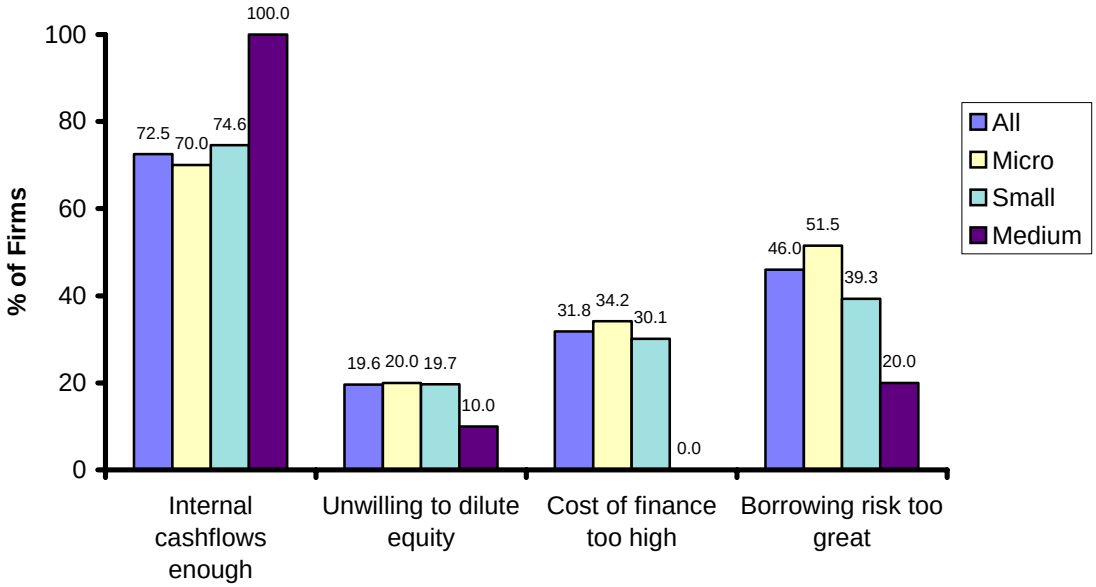
This link between growth and the need for external finance is examined further in Table 6.2. This table reinforces the link between external finance and growth with 30% of non-growing firms seeking finance in comparison with 51% of fast growing firms. It also shows that a greater proportion of less profitable firms need to seek external finance. When the sample is divided in half using the profit margin, only 33% (26% GB) of those with above average profitability sought external finance, whilst the proportion was 46% (45% GB) for the less profitable.

Table 6.2
Percentage of firms who sought finance in 2001-04 by profitability and growth

Profit Margin	GB 2004 - All	NI 2004 - All	Northern Ireland		
			Stable/ Declining	Medium growth	Fast growth
Above Average	26.4	33.3	27.2	27.8	42.5
Below Average	45.2	46.2	34.0	46.6	62.9
All	35.8	39.7	30.4	39.4	51.9
No. of firms	639	532	214	94	135

The CBR NI survey included a question about why firms did not seek external finance in the previous two years. The key findings are presented in Figure 6.3 which shows the dominant reason is that internal cash flows were sufficient. This was given as a reason by 70% of the micro firms rising to 100% of the medium-sized firms. The second most common reason given was that the borrowing risk was too great. This influenced 51% of micro firms, but only 20% of medium-sized firms, not to seek external finance. The fear of equity dilution also falls with firm size and was given as a reason by 20%, 20% and 10% of the micro, small and medium firms respectively. The cost of finance also declines in importance as a deterrent with rising firm size.

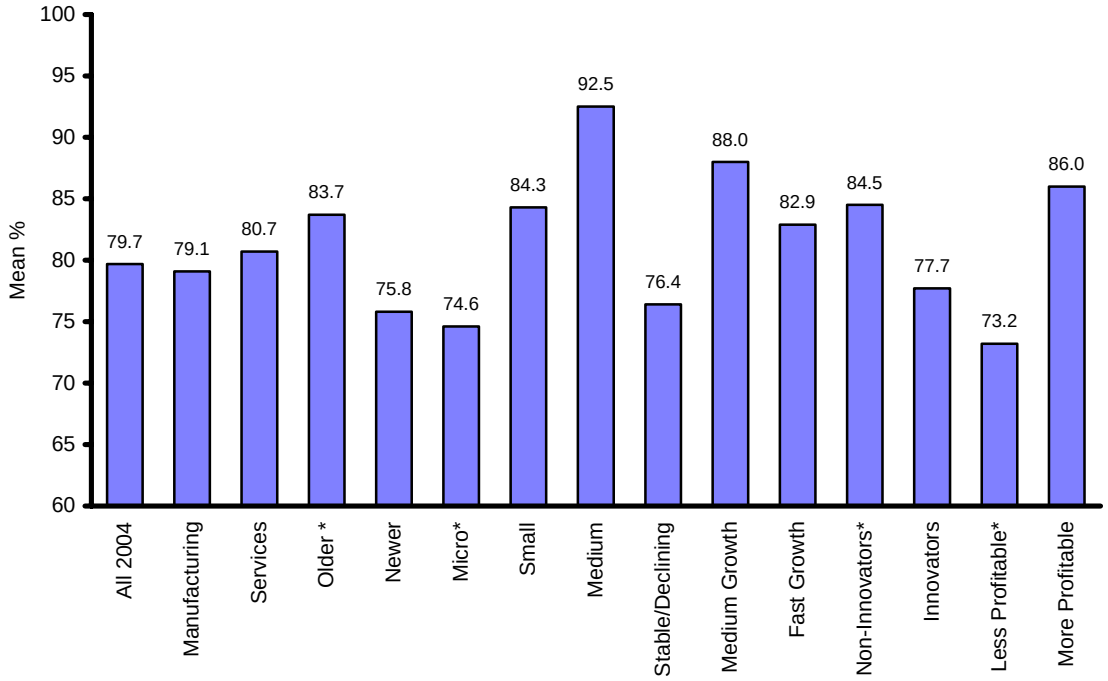
Figure 6.3
Reasons given for not seeking additional finance - NI
(multiple answers permitted)



The average percentage of finance obtained is shown in the first column of Figure 6.4. At 80% it is somewhat below the 84% success obtained by firms in our matched GB 2004

sample. Older firms obtain a significantly higher proportion of the funds they seek than newer firms. There is a significant and positive relationship between firm size and fundraising success. More profitable firms also have a significantly higher proportion obtained than less profitable firms, as do firms exhibiting some growth. Non-innovators are also more successful in obtaining the funds they seek than are innovative firms. The other groups show no differences in the percentage of finance obtained.

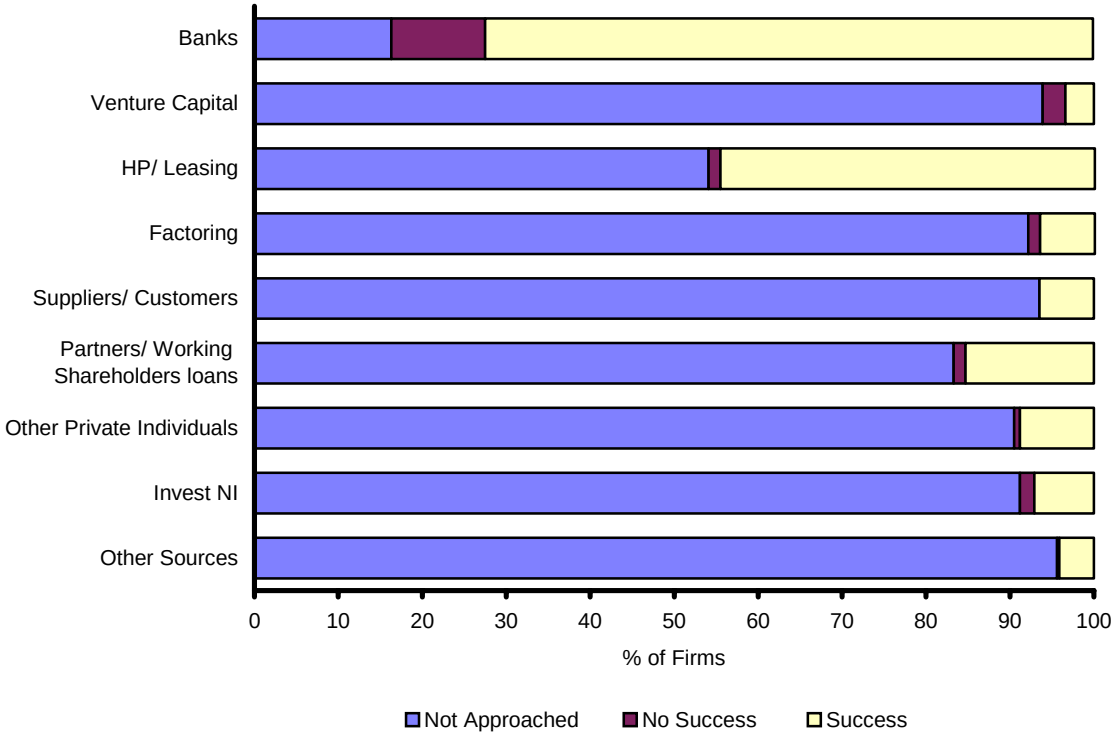
Figure 6.4
Mean percentage of finance obtained - 2004 - NI



6c Sources of Finance

Firms that sought external finance were asked about which sources they had approached and how successful they had been in obtaining what they sought. Firms may approach more than one source of finance and Figure 6.5 shows, for each source, the percentage of firms which approached that source and whether, or not, they met with some success. The figure reveals that 84% of those seeking finance approached their bank. The only other source approached by about half the sample was HP/leasing businesses (46%). Working shareholders or partners were also approached fairly frequently in 2002-04, 20% of those who sought external finance. Each other source was approached by less than 10% of these firms. These figures are very close to those found for the GB sample.

Figure 6.5
Sources of finance approached and success rate (2002-2004) - NI



A significant proportion of our sample failed to get the financial support they sought from the banks. However, given the dominance of the banks as a potential source, this is not particularly surprising. Table 6.3 examines this issue in a more direct way, by calculating the proportion of those approaching each source of finance that met with no success. This failure rate is shown for all firms in the second and fourth columns of the table for the GB and the NI matched samples. The table shows that NI firms are less likely to approach factoring firms and venture capitalists and more likely to approach banks and other sources, particularly HP/leasing.

The figure also shows that the failure rate is greatest for approaches to venture capitalists. For the first time we have distinguished between seeking equity and seeking loans from venture capitalists. We can see that the former is more popular and slightly less likely to fail. Of course each firm may have approached several different venture capital firms, but this would be recorded as only one approach here. The same is true for other categories, so the failure rate must be interpreted as the overall failure from that type of support. The picture is the same for the GB sample, but they have a lower failure rate with venture capitalists.

The lowest failure rate is found for applications to HP and leasing firms and this is also the case in the GB sample. The failure rates for banks and factoring are greater in the NI survey to that found for the rest of the UK. Unlike the finding in the GB survey, partners and existing shareholders and other private individuals are more likely to refuse a loan

request compared with an equity participation. The failure rates for these types of finance are lower in the NI sample.

Table 6.3
Sources of finance: % approached and % failure rate

	NI 2004		GB 2004	
	All (2002-04)		All (2002-04)	
	Approached	Failure Rate	Approached	Failure Rate
	%	%	%	%
Banks	83.7	13.4	81.2	8.7
Venture Capital	-	-	-	-
- equity	4.4	53.8	6.3	50.0
- loan	4.1	58.3	6.3	37.5
HP/Leasing	45.9	3.0	36.1	4.3
Factoring	7.8	17.4	11.0	14.3
Trade Customers	6.5	0.0	6.3	31.3
Partners/ Shareholders	-	-	-	-
- equity	9.5	7.1	7.5	21.1
- loan	10.2	13.3	9.0	8.7
Other Private Individuals	-	-	-	-
- equity	4.4	7.7	6.3	37.5
- loan	6.5	10.5	5.9	20.0
Invest NI Sources	8.8	19.2	-	-
Other Sources	4.4	7.7	9.0	17.4

Table 6.4 shows the differences in frequency of approach and failure rates across our size groups. Micro firms are more likely to approach banks than larger firms and the proportion approaching banks is higher in the NI sample than in the GB sample in the micro size class. On the other hand larger firms are more likely to have sought HP, leasing and factoring finance. The picture for venture capital is not as clear. It would appear that small firms are the least likely size group to approach venture capitalists, less than micro firms, contrary to what was found in the GB sample.

In line with our previous surveys micro firms have the highest failure rate in seeking bank finance. In fact, we find that in general the micro firms suffer a higher failure rate with most sources, with venture capitalists most likely to turn them down. This is consistent both with a higher risk profile for such firms and with a lower level of cost effectively obtainable information about them.

Table 6.4

Sources of finance: % approached and % failure rate

	NI 2004					
	Micro		Small		Medium	
	Approached	Failure Rate	Approached	Failure Rate	Approached	Failure Rate
	%	%	%	%	%	%
Banks	87.2	16.9	79.8	10.7	81.3	0.0
Venture Capital	-	-	-	-	-	-
- equity	4.7**	85.7	2.3	33.3	18.8	0.0
- loan	6.7*	70.0	1.6	0.0	0.0	0.0
HP/Leasing	30.9**	2.2	59.7	3.9	75.0	0.0
Factoring	6.0**	44.4**	7.8	0.0	25.0	0.0
Trade Customers	6.0	0.0	7.8	0.0	0.0	0.0
Partners/ Shareholders	-	-	-	-	-	-
- equity	10.1	6.7	8.5	9.1	12.5	0.0
- loan	12.8	15.8	7.8	10.0	6.3	0.0
Other Private Individuals	-	-	-	-	-	-
- equity	6.0**	11.1	1.6	0.0	12.5	0.0
- loan	8.1	8.3	3.9	20.0	12.5	0.0
Invest NI Sources	6.7	10.0	12.4	25.0	0.0	0.0
Other Sources	6.7	10.0	2.3	0.0	0.0	0.0

	GB 2004					
	Micro		Small		Medium	
	Approached	Failure Rate	Approached	Failure Rate	Approached	Failure Rate
	%	%	%	%	%	%
Banks	81.1	7.1	81.5	11.3	78.6	0.0
Venture Capital	-	-	-	-	-	-
- equity	6.6**	75.0	6.7	25.0	0.0	0.0
- loan	6.6	50.0	6.7	25.0	0.0	0.0
HP/Leasing	24.6**	0.0	46.2	7.3	50.0	0.0
Factoring	5.7**	0.0	14.3	23.5	28.6	0.0
Trade Customers	6.6	25.0	6.7	37.5	0.0	0.0
Partners/ Shareholders	-	-	-	-	-	-
- equity	7.4	22.2	8.4	20.0	0.0	0.0
- loan	6.6	12.5	10.9	7.7	14.3	0.0
Other Private Individuals	-	-	-	-	-	-
- equity	8.2	50.0	5.0	16.7	0.0	0.0
- loan	6.6	25.0	5.9	14.3	0.0	0.0
Other Sources	9.8	25.0	7.6	11.1	14.3	0.0

6d Finance Obtained

The importance of the various sources of finance is summarised in Table 6.5 for our various types of firm. The upper half of the table shows, for those firms which obtained some finance, the proportion which received at least part of the total finance they received from that source.

This comparison supports the broad picture described about the relative importance of different sources, but does reveal some significant differences. Manufacturing firms are more likely to obtain support from banks, HP/leasing and factoring businesses, but significantly less likely to draw upon partners/working shareholders. Older firms are significantly more likely to draw upon factoring and HP/leasing finance, whilst newer firms gain support from trade customers, shareholders and private individuals significantly more frequently. Innovators also draw more from partners, shareholders and private individuals. There are few simple differences across the growth categories, but less profitable firms are more likely to use factoring and HP/leasing finance.

The lower half of Table 6.5 examines the percentage division of the finance obtained from these various sources. Therefore, in this part of the table, the percentages do sum to 100%. The first and second columns take the GB and NI samples as a whole; and the NI figures are displayed in Figure 6.9. For the matched GB sample we found a resurgence of bank finance in 1999 and a return to its dominance of SME finance, but that picture has been reversed somewhat since then. The proportion of bank finance in the UK sample was 61% in 1999, but fell back to 52% in 2002. The figure for the NI sample in 2004 is between these two at 58% and compares with 63% for the matched GB 2004 sample. HP, leasing and invoice finance was 13% in GB 2004, in comparison with 18% within the NI sample.

Figure 6.9
Mean % share of finance obtained by source of finance 2002-04
NI

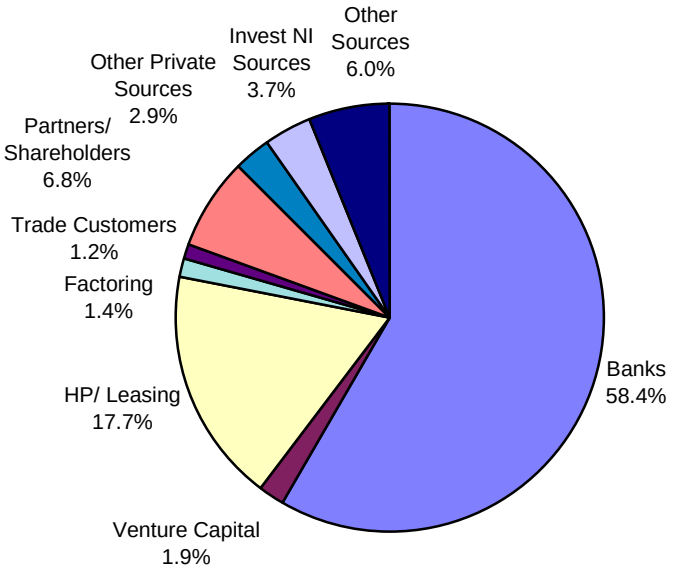


Table 6.5 Finance obtained

Source of Finance	GB 2004 All	NI 2004 All	Northern Ireland										
			Manu-facturing	Services	Stable/ Declining	Medium Growth	Fast Growth	Less Profitable	More Profitable	Older	Newer	Non-Innovators	Innovators
% of respondents receiving additional finance from:													
Banks	72.4	69.8	71.3	67.7	61.8	72.3	77.1	69.9	73.6	71.0	68.2	66.3	71.5
Venture Capital													
- equity	3.1	2.0	1.1	3.2	1.3	0.0	2.4	3.4**	0.0	1.9	2.0	1.0	2.4
- loans	3.8	1.6	1.7	1.6	2.6	0.0	0.0	2.6	1.7	1.3	2.0	2.0	1.4
HP/Leasing	33.7**	43.0	44.8	40.3	36.8**	72.3	42.2	43.2*	34.5	51.6**	34.5	43.9	42.5
Factoring	9.2	6.2	7.2	4.8	5.3	8.5	7.2	12.8**	1.1	8.4	4.1	4.1	7.2
Trade Customers	4.2	6.2	6.6	5.6	1.3	8.5	6.0	5.3	4.6	3.2**	9.5	6.1	6.3
Partners/ Shareholders													
- equity	5.7	8.5	6.1*	12.1	10.5	4.3	6.0	6.8	5.7	6.5	10.8	5.1	10.1
- loans	8.0	8.9	6.6*	12.1	10.5	8.5	9.6	9.8	6.9	5.2**	12.8	5.1	10.6
Other Private Individuals													
- equity	3.8	3.9	3.3	4.8	5.3	0.0	2.4	4.5	1.7	1.3**	6.8	1.0*	5.3
- loans	4.6	5.6	3.9	8.1	3.9	4.3	4.8	5.6	4.0	1.9**	9.5	2.0*	7.2
Invest NI Sources	-	6.9	3.9	4.3	2.6	2.4	2.8	2.3*	5.7	3.0	5.7	2.4	4.9
Other Sources	7.3	4.3	4.5	6.8	4.2	6.1	8.3	3.8	7.5	5.5	5.7	5.3	5.7
Mean % share by source of finance:													
Banks	62.5	58.4	56.6	60.8	59.9	49.3	61.1	53.2*	63.4	59.4	57.0	61.7	56.8
Venture Capital													
- equity	2.2	1.3	0.4*	2.5	1.0	0.0	1.5	1.2	0.0	0.9	1.8	0.7	1.6
- loans	1.7	0.5	0.6	0.5	1.3	0.0	0.0	0.0	0.9	0.6	0.4	0.7	0.5
HP/Leasing	13.4**	17.7	20.1	14.7	20.0	23.6	17.2	21.9**	15.9	21.4**	14.1	19.5	16.9
Factoring	3.3	1.4	2.1	0.5	1.2	4.9	0.9	3.3**	0.3	2.3	0.4	2.0	1.1
Trade Customers	1.1	1.2	1.7	0.5	0.0	0.6	2.3	2.4	0.4	0.2	2.2	1.7	1.0
Partners/ Shareholders													
- equity	3.1	2.4	2.2	2.7	4.0	0.7	0.9	2.0	1.4	3.1	1.7	2.3	2.5
- loans	3.8	4.4	4.2	4.6	2.8	7.4	4.3	5.9	2.5	2.3**	6.4	2.0	5.5
Other Private Individuals													
- equity	0.7	0.7	0.8	0.7	1.1	0.0	1.1	0.3	0.5	0.5	0.9	0.0*	1.1
- loans	1.5	2.2	1.4*	3.3	1.0	2.8	3.2	2.7	1.9	0.8*	3.6	1.4	2.6
Invest NI Sources	-	6.0	5.5	6.6	6.1	5.6	3.1	4.9	8.1	5.2	6.8	3.3	7.2
Other Sources	6.2	3.7	4.5	2.7	1.5	5.3	4.5	2.3	4.8	3.1	4.5	4.7	3.3

Asterisks in the first column of a group indicate statistically significant differences between the types of business grouped by industry, growth, profitability, age, size or innovation experience (* = significant at the 10% level, ** = significant at the 5% level or better).

Manufacturing firms continue to use a higher proportion of HP/leasing finance and a lower proportion of bank finance than service firms; and they draw less on all equity sources. Less profitable firms draw much less on banks and, as a consequence, draw upon a wider range of other sources of finance in comparison with profitable firms. In particular less profitable use significantly more of HP/leasing and factoring. This is also the case for older firms. Non-innovators have a very heavy reliance on the banks and draw significantly less from HP/leasing and invoice finance. Innovators get more of their finance from venture capital and from individuals.

Table 6.6
Finance obtained

	NI 2004			GB 2004		
Source of Finance	Micro	Small	Medium	Micro	Small	Medium
% of respondents receiving additional finance from:						
Banks	69.7	68.7	81.3	74.8	69.4	78.6
Venture Capital						
- equity	0.6**	1.5	18.8	1.6	4.8	0.0
- loans	1.9	1.5	0.0	3.3	4.8	0.0
HP/Leasing	29.0**	55.2	75.0	24.4**	41.1	50.0
Factoring	3.2**	7.5	25.0	5.7**	10.5	28.6
Trade Customers	5.8	7.5	0.0	4.9	4.0	0.0
Partners/ Shareholders						
- equity	9.0	7.5	12.5	5.7	6.5	0.0
- loans	11.0	6.7	6.3	5.7	9.7	14.3
Other Private Individuals						
- equity	5.2*	1.5	12.5	4.1	4.0	0.0
- loans	7.1	3.0	12.5	4.9	4.8	0.0
Invest NI Sources	3.6	5.0	0.0	-	-	-
Other Sources	6.5	4.3	6.7	7.3	6.5	14.3
Mean % share by source of finance:						
Banks	62.8	52.9	61.8	69.5*	57.1	51.1
Venture Capital						
- equity	0.4**	1.1	11.7	1.6	3.0	0.0
- loans	0.6	0.5	0.0	1.3	2.4	0.0
HP/Leasing	9.9**	26.8	19.1	8.8**	16.1	27.7
Factoring	1.4	1.4	0.4	1.7*	4.4	6.1
Trade Customers	2.1	0.3	0.0	1.8	0.5	0.0
Partners/ Shareholders						
- equity	2.2	2.9	0.7	3.1	3.5	0.0
- loans	5.1	3.3	5.4	1.5*	5.4	8.2
Other Private Individuals						
- equity	0.6	1.0	0.2	0.9	0.6	0.0
- loans	3.6	0.7	0.8	1.8	1.5	0.0
Invest NI Sources	4.9	8.0	0.0	-	-	-
Other Sources	6.4*	1.2	0.0	6.9	5.4	6.8

Asterisks in the first column of a group indicate statistically significant differences between the types of business grouped by size (* = significant at the 10% level, ** = significant at the 5% level or better).

Table 6.6 provides an equivalent table showing the use of finance sources across the various size groups for both the GB and the NI 2004 matched samples.

The top half of the table looks at the proportion of firms receiving finance from each of the sources of finance, but considers only those firms that received some finance. The bottom half of the table shows the mean proportion of the total finance received by the sample firms from each source.

Looking first at the upper half of the table we can see that bank finance is the most frequently used source of finance in both survey samples used by over two thirds of firms in all size categories. HP/leasing and factoring are used as sources of finance significantly least frequently by the micro firms. New equity finance is used more frequently by medium-sized firms in the NI sample.

Other sources of finance were mentioned frequently by micro and small firms. The main source for both groups was Invest N.I. The secondly most frequently used source was government or EU initiatives which was used mainly by micro firms.

If we turn to the lower half of the table, we can see that micro and small NI firms received higher proportions of their finance from banks than their matched GB counterparts. In the GB sample bank finance appears to fall in importance with firm size just as HP/leasing and invoice finance rise importance. In the NI sample the same pattern extends in going from micro to small, but then reverses when moving into the medium sized group. In the NI sample, with the exception of medium-sized firms, a higher proportion of their finance comes from other sources; whereas only medium-sized firms make significant use of venture capital.