

The Changing State of British Enterprise

Growth, Innovation and Competitive Advantage in Small and Medium Sized Firms 1986-95

Edited by

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Executive Summary of Key Findings

The Changing State of British Enterprise

The Report

The Changing State of British Enterprise: growth, Innovation and Competitive Advantage in Small and Medium Sized Firms (ESRC Centre for Business Research, University of Cambridge, 1996)

This report provides a unique picture of the development of around 1,000 small and medium sized enterprises (SMEs) in the manufacturing and business service sectors of the UK economy over the period 1986-95. The report draws upon a series of surveys carried out since 1991 by the ESRC Centre for Business Research at the University of Cambridge. The most recent, in 1995, placed special emphasis upon the innovative activity of SMEs. This report therefore provides the most detailed and up to date examination available of the objectives and scale of SME innovative activity in the UK. It also covers in depth the financial and other constraints upon innovative activity and the ways in which technology transfer occurs in the SME sector. This is set against the background of a detailed examination of the factors affecting the growth and survival of UK SMEs in the period 1986-95. The report discusses their growth objectives and constraints, market and competitive situation, profitability and access to finance, job creation activity, and the changing skill composition of their workforce. Identifies important locational differences in SME characteristics within Britain, both between North and South and between the country's big cities and small town or rural areas. Throughout, it systematically differentiates its findings in terms of enterprises of different sizes, sectors, ages and rates of growth.

This report has been written and organized so as to be as accessible and user friendly as possible, not just to academics and policy makers, but to all who are interested in the current state of Britain's small and medium-sized enterprises. It is designed to be a mine of useful information, for reference and assessment of the condition and characteristics of smaller businesses, in particular those which have grown beyond the very small one or two person stage in their development

The report includes over 100 tables and figures, and consists of nine substantive chapters and an appendix describing the sample design and conduct of the survey.

Introduction

Andy Cosh and Alan Hughes

This set of Executive Summaries presents the key findings of a report on *The Changing State of British Enterprise*. The Full report provides the first analysis of the results of the 1995 survey of small and medium sized enterprises in Britain carried out by the ESRC Centre for Business Research (CBR) at the University of Cambridge. The survey is one of a series being carried out with the aim of producing a comprehensive picture of the changing state of enterprise in this important sector of the economy. The report covers a wide range of issues of direct concern to policy makers, practitioners and academics interested in the growth failure and innovative performance of small firms. A particular feature of the report is its emphasis on the analysis of change in the SME sector based on the use of a unique panel database constructed from successive surveys of an original sample of 2, 028 small and medium sized enterprises which were first surveyed in depth in 1991 (SBRC 1992) and in a second follow-up survey in 1993 (Cosh, Duncan and Hughes (1995)) prior to the 1995 survey. These firms, drawn equally from the manufacturing and business service sectors, and with employment between 1 and 500 in 1990 have been tracked over time so that it is now possible to analyse patterns of growth and survival with data derived from the periodic surveys which cover the years 1986-95.

The report has particular emphasis on innovative activity. This reflects the importance attached to this issue in current policy discussions in Europe and the UK, and the need for a UK survey in this area to match the Harmonised Community Innovation Survey first available in 1996 for the other EU countries. Three chapters are devoted to innovation covering the scale of innovative activity in our sample, its objectives, and the constraints upon it; the particular problems of financing innovation; and the sources of innovation, technology transfer and the nature of technology diffusion. This analysis is however set against a wider background which begins in the first chapter of the report with a discussion of the size, age and industrial characteristics of our sample of firms and the pattern of growth and job creation within it. This is followed by a detailed discussion of the changing workforce and skill compositions of our survey firms. Two further chapters deal respectively with the market and competitive situations facing SMEs and the nature of their growth objectives and constraints. A final chapter probes the important regional and urban-rural variations in SME performance characteristics. In each of the chapters we provide a comparison between standard subsets of our overall sample. These comparisons are made between manufacturing and service SMEs, four different employment size classes, three growth categories, two age categories and groupings by innovative and non-innovative firms. These are consistent with, and allow a ready comparison with, our earlier report on the 1991 survey (SBRC (1992)).

Definitions

Types of Business

Micro	Businesses with less than 10 employees in 1990
Small	Businesses with between 10 and 99 employees in 1990
Medium	Businesses with between 100 and 199 employees in 1990
Larger	Businesses with between 200 and 499 employees in 1990
Newer	Businesses formed in 1980 or later
Older	Businesses formed in 1979 or earlier
Manufacturing	All manufacturing industries (SIC (1980) Orders 2-4).
Services	Advertising, Management, Technical and Professional Consultancy Services (SIC (1980) principally industry headings 8360, 8370, 8380, 8394, 8395, 8396).
Stable/Declining	Businesses with zero or negative employment growth (1990-95)
Medium Growth	Businesses with employment growth greater than 0% and less than 35% (1990-95).
Fast Growth	Businesses with employment growth of 35% or greater (1990-95)
Innovators	Firms which introduced a product or process innovation during the three years 1992-95.
Non-Innovators	Firms which did not introduce any innovation during the three years 1992-95.

Survey Period	July – October 1995.
Overall Response Rate	62.7%

The terms business, enterprise and firm are used inter-changeably in this report.

Chapter one

Size, age, Survival and Employment Growth, *Andy Cosh, John Duncan and Alan Hughes*

- The 1995 Survey consists of 998 responses represents 62.7% of the firms originally surveyed in 1991 who survived to 1995
- The medium term macroeconomic experience of the 1995 respondents had been a depressed market and recession in contrast to the sustained but slowing expansion experience of the 1991 respondents.
- The 1991 characteristics of the non-respondents to the 1995 survey due to firm 'failure' was significantly different from those of alive firms. There was no significant difference between firms that responded to the 1995 survey and those firms that were alive but did not respond in terms of these characteristics.
- The 'failed' firms are generally younger micro firms in the service sector and with lower turnover.
- Of the responding firms 52.7% were in manufacturing and 47.3% in business services. This approximates the original 1991 stratified sampling frame.
- Over 80% of the 1995 respondents employed less than 100 employees in 1990 and over a quarter employed less than 10 employees. These proportions are similar to those of the 1991 survey respondents.
- Smaller firms are more concentrated in the service sector where they account for approximately two thirds of the firms in the 1995 sample. Small, medium and larger firms are more prominent in manufacturing.
- There is no significant change in the distribution of firms by real turnover between 1990 and 1995.
- Approximately 46% of firms responding to the 1995 survey started after 1979 compared to 50% in the 1991 survey.
- Approximately 50% of the sample exported in 1995 compared to 40% in 1990 suggesting a more positive overseas experience in the latter period.
- Export intensity has increased over all categories in the 1990-95 period compared to 1990. Firms showing the highest export intensity growth tended to be younger, and either in the micro or larger size groups.
- In the 1990-95 period 22% of the firms were fast growers compared to 40% in the 1987-90 period. This may be a result of maturing characteristics of the firms and the macroeconomic environment where there was a net rise in unemployment levels for the 1990-95 period.

- Newer and micro sized firms had a higher proportion of firms in the fast growth category as did services and innovating firms.
- There is a strong negative relationship between firm size and death rate. The largest firms in 1990 had only 18.3% death rate compared to 35.1% for micro firms.
- Of the 'failing' firms, 17 firms failing in the larger size category accounted for nearly eight times as many job losses as the 132 failing firms in the micro sized category.
- Job creation is highest in proportionate terms in micro firms and is relatively dominated by part time jobs compared to that in other size categories.
- It does not appear to be the case that the greater job generating capacity of the micro firms is based on a predominance of low skilled jobs although amongst 'small' SMEs employment growth is relatively dominated by semi-skilled and unskilled jobs.
- Newer, faster growing, innovative and service sector firms have the highest increases in the technological, higher professional and management job groups.

Chapter Two

Workforce and Skill Compositions, *Michael Kitson and Frank Wilkinson*

- This chapter is concerned with changes in employment and skill compositions in the 1990s.
- Micro firms increased their employment by over 50% whilst small, medium and larger firms each increased jobs by less than 20%.
- Micro firms contributed around 10% and small firms 40% to the overall growth in employment of 16% whilst medium and larger firms made roughly equal contributions to the remaining 50% of the increase.
- The largest increase in employment was for skilled manual, clerical and administrative workers whilst the employment of technicians and lower professionals fell.
- The increase in employment is wholly explained by the increase in full-time jobs.
- Increases in part-time workers were reported, especially for skilled manual workers and in micro-firms, but these were just offset by reductions of part-time workers, mainly amongst semi-skilled workers and in the larger firms.
- Innovating firms were much more likely to employ highly qualified technical, professional and scientific staff than firms who do not innovate.
- There was a decline in the number of firms employing technologists, scientists and higher professionals and especially firms employing technicians and lower professionals, a decline which was much less amongst innovating firms.
- Amongst firms who provided formal training there was an especially large increase in the proportion employing technologists, scientists and higher professionals.
- The net proportion of firms which increased employment for technologists, scientists and higher professionals was relatively low and for technicians and lower professionals it was negative.
- The net proportion of firms gaining technologists, scientists and higher professionals was higher and the net proportion of firm losing technicians and lower professionals was lower for innovators and for trainers than for non-innovators and non-trainers.
- The most striking finding was the relatively slow growth of employment of technologists, scientists and higher professionals and the decline in the employment of technicians and lower professionals. This trend might be explained by:
 - increased sub-contracting of technically sophisticated functions;

- the upgrading effects of training technicians and lower professionals;
- the increasing use of skilled manual workers to operate electronic and computer aided equipment as controls have become simplified, a change which could be expected to squeeze technicians and lower professional grades;
- economising in the use of high cost labour;
- skill shortages.

Chapter Three

Markets and Competition, *Michael Kitson and Frank Wilkinson*

- In general, the firms in the survey, particularly smaller firms, rely on relatively few customers.
- The smaller the firm the greater the likelihood that its competitors will be larger – over half of micro firms and a third of small firms compete exclusively with larger businesses.
- The extent of foreign competition faced by the firms in the survey increased during the 1991-95 period – in 1991 only 31% of these firms had any serious overseas competitors, by 1995 this had increased to 40%
- Although the service sector is more sheltered from foreign competition than the manufacturing sector there has been a noticeable increase in foreign competition in services since 1991.
- Innovating firms are more likely to face foreign competition – in 1995 48% of innovating firms had serious overseas competitors compared with 21% of non-innovating firms.
- In 1995, personal attention to client needs, established reputation, speed of service and product quality were the most important competitive factors – indicating no major shifts in the **overall** competitive situation since 1991.
- There are significant competitive differences between the manufacturing and service sectors – the former attaching greater importance to speed of service, while the latter puts greater emphasis on flair and creativity.
- There are also significant competitive differences between the innovating and non-innovating firms – the former stress the importance of higher-order qualitative factors which require investment in skills and technical capability and put less emphasis on cost and price factors.
- The importance of product quality, marketing and cost advantages tend to increase with the size of firm.
- Firms with a better growth performance put greater emphasis on flair and creativity and attach less emphasis to price.
- The extent of collaboration and cooperation increased during the 1991-95 period – in 1995 39% of firms had entered into formal or informal partnership agreements with other organisations during the previous three years, an increase of 5% points on 1991.

- Fast growing firms were more likely to enter into partnership agreements.
- Innovating firms were also more likely to enter into partnership agreements – in the 1995 survey 50% of innovating firms entered partnership agreements compared with only 18% of non-innovating firms.
- The most common collaborative partners were firms in the same line of business, customers and suppliers.
- Innovating firms are three times more likely to collaborate with higher educational establishments than are non-innovating firms.
- The firms in the survey undertook collaborative arrangements for a variety of reasons, with the most important (in 1991 and 1995) being to help expand the range of expertise and products, to assist in the development of specialist services and products required by customers, to provide access to UK markets and to provide access to overseas markets.
- The reason for collaboration which has shown the greatest increase since 1991 is to help keep current customers – suggesting a defensive response to increased competitive pressures.
- In general, innovating firms are more likely to collaborate for all reasons compared with non-innovating firms – the one exception is to help keep current customers, suggesting that non-innovators are far more defensive with regard to maintaining market share.
- The evidence in this chapter indicates the importance of recognising that competitiveness comprises a wide range of factors and that effective collaboration is important in fostering innovation and growth.

Chapter Four

Growth Objectives and Constraints, *David Keeble*

- Few SMEs achieved their 1991 growth objectives, at least as measured by employment, over the subsequent five year period, largely because of the recession. Some 46% of those planning to grow failed to do so, with less than one-third planning rapid growth actually achieving this (+35% or more).
- SME growth objectives over the next three years given in the 1995 survey follow a similar pattern to those for 1991, with a slightly higher proportion (25%) aiming at 'rapid growth'. There appears to be generally broad stability in SME growth objectives over time, 62% reporting unchanged objectives compared with 1991.
- Future growth objectives differ significantly between different groups of SMEs, with innovating firms, firms which grew rapidly up to 1995, newer firms, and medium and larger SMEs containing much higher proportions of firms planning rapid growth over the next three years. Very small firms are most likely to plan for stability or even decline.
- The highest rated constraints on growth over the previous three years, in order, were increasing competition, growth of market demand, marketing and sales skills, management skills, and availability and cost of finance for expansion. These reflect recession and the increasing complexity of the business environment, and suggest a continuing need for policy initiatives concerned with management training.
- The perceived severity of constraints on growth may have declined since 1991, while the rank order of particular constraints has undoubtedly changed markedly. Increasing competition and inadequate management and marketing skills have become much more important, because of recession and perhaps also the increasing maturity of firms in the sample. Financial problems, and especially problems with bank overdraft finance, have become less serious, both because of recession and lower interest rates.
- Marked differences in perceived growth constraints exist between different SME groups, the most striking being between innovating and non-innovating firms, innovating firms experiencing more severe constraints in terms of management and marketing skills, finance for expansion, skilled labour, implementing new technology, and accessing overseas markets.
- Similarly, fast-growth firms suffer more serious management skill, skilled labour and premises constraints than other firms, young firms experience more serious financial, management skill and skilled labour constraints, and medium-sized firms rate increasing competition and problems with market demand more highly. Larger firms report more severe management skill constraints. Manufacturing firms report greater problems than service firms

with market demand, accessing overseas markets and availability of premises. Government policies need to be sensitive to these important differences.

Chapter Five

Profitability and Finance, *Andy Cosh, John Duncan and Alan Hughes*

- For the sample as a whole the 1990-95 period shows a small but statistically significant increase in profit margins. Of these the largest increases are in older, smaller and manufacturing firms, narrowing some of the differences observed in the 1990 sample.
- Profit margins are generally higher for younger, micro, service sector, medium growth and non-innovating firms. Medium growth firms moved from being the least profitable to most profitable in the 1990-95 period.
- Innovating firms were less profitable than non-innovating firms in both 1990 and 1995. This could be a result of more resources being diverted towards innovating activities or that low profitability stimulates the need to improve performance through innovation.
- Approximately 39 percent of firms sought external finance in the last year.
- There is little difference between older and younger firms in seeking external finance, but the 1991 survey found a higher proportion of newer firms seeking finance. This could be a result of maturing firms or that surviving younger firms have the same level of dependence on external finance as older firms.
- In both survey periods micro firms sought the least finance and largest firms the most finance.
- The proportion of finance sought is directly proportional with growth levels but there was not much difference between manufacturing and service sectors.
- Firms that are less profitable are seeking more finance. Fast growers who are less profitable are most likely to seek additional finance.
- Most groups sought external finance beyond their actual capital expenditure. This gap is most notable among younger, micro and medium sizes, services and stable/declining growth firms.
- Banks were the single most approached source of finance followed by Hire Purchase and Leasing firms for both survey periods.
- Rejection rates in providing finance are lower in the 1994-95 period compared to the 1991-93 period. Venture capitalist is the least likely source to provide any of the finance sought in both periods.

- In both the 1991-93 and 1994-95 periods, larger firms approached banks far more frequently than the other three size categories. Although success is high across all categories, micro and newer firms are not as successful in obtaining funds from banks.
- Fast growth firms did not approach banks as frequently as moderate or stable/declining growers in 1994-95. This is a marked difference from their behaviour in 1991-93 suggesting a growing diversity of sources of finance for this group.
- The success rate of obtaining finance from Hire Purchase and Leasing firms is very high for both the 1991-93 and 1994-95 periods. Manufacturing firms use this source of finance more than service firms. This source is also more popular with less profitable firms.
- The 1995 sample obtained 84% of the external finance they sought.
- Compared to the 1991-93 period, the gap between micro and other firms and between newer and older firms has narrowed by 1994-95 in terms of the mean percent of finance obtained. This may be due to sample attrition bias as less profitable younger and micro firms leave the sample through firm 'failure'.
- The position of banks remain prominent in 1994-95 but is losing ground to Hire Purchase and Leasing firms in terms of the mean share of finance provided.

Chapter Six

Innovation: Scale, Objectives, and Constraints, *Andy Cosh, Alan Hughes and Eric Wood*

- Firms which failed or were failing in the period 1991-95 faced significantly greater financial constraints on innovation and were significantly less likely to have introduced a process innovation in the period 1986-91 than firms which survived until 1995.
- There is some evidence for increased product and process innovation activity amongst surviving SMEs in 1992-95 than in 1986-91.
- The proportion of all sizes of SMEs introducing either product or process innovations appears set to continue to increase.
- A significantly higher proportion of manufacturing firms than business service firms reported product innovations in 1995 while similar proportions of firms in these sectors reported process innovations.
- The positive relationships between firm size and innovation and between employment growth and innovation observed in 1991 persisted in 1995.
- With the exception of process innovations new to the firm, in which older firms are more likely than younger firms to have innovated, age does not appear to be significantly related to innovation.
- A higher proportion of SMEs report the introduction of new or improved products in their ranges than report product innovations.
- In some firms, the introduction of new or improved products appears to be associated more strongly with process rather than product innovation.
- Introducing new, improved and higher quality products is the most important objective of SME innovation, significantly more important than the objective of lowering costs.
- The importance of lowering production costs, improving output flexibility and increasing market share as objectives of innovation increases with firm size.
- Despite a significant fall in the financial constraint on SME innovation over the period 1991-95, this factor remains one of the chief constraints on SME innovation, second only to the high cost of innovation.
- The severity of the financial constraint on innovation decreases with increasing age, size and growth rate.

- The skills constraint on SME innovation increased significantly between 1991 and 1995.
- Innovative SMEs report that the lack of adequate information on markets is a more important constraint on innovation activity than do non-innovative ones.
- Process innovation is more likely than product innovation to be associated with a painful learning process in the firm involving new technologies and high innovative costs.

Chapter Seven

Sources of Innovation, Technology Transfer, and Diffusion, *Barry Moore*

- Sources of information for innovation by SMEs are very diverse, but the firm itself is the main source.
- Information from clients and customers is the most highly ranked external source of information.
- Only a minority of SMEs cited knowledge and information based institutions such as universities, patent disclosures and trade fairs as important sources of information for innovation.
- Larger firms are more likely to regard external sources of information as important.
- The most effective method for maintaining and increasing the competitiveness of innovation is having lead time over others and this method is more likely to be favoured by larger SMEs.
- Patents and registrations of design as means of increasing the competitiveness of innovations are of importance for only a small minority of firms.
- Most new technologies acquired by SMEs come from within the UK with other EU countries and elsewhere being of minor importance.
- The purchase of equipment is the most important way by which new technologies are acquired with consultancy the next most frequently cited route.
- There is a positive relationship between the growth performance of SMEs and their propensity to acquire new technologies externally.
- Innovating SMEs are more likely than non-innovating SMEs to acquire technology externally.
- Only a small proportion of firms transfer new technology to other organisations and consultancy is the main way that the transfer is effected.
- A high proportion of SMEs are engaged in R&D on a continuous basis, particularly the larger firms.
- Over half of R&D expenditure by SMEs is devoted to product innovation and just under one third to process innovation.

- Innovating firms are much more likely to undertake R&D than non-innovating firms.

Chapter Eight

Financing Innovation, *Andy Cosh, Alan Hughes and Eric Wood*

- Firms introducing process innovations perceive less financial constraint on innovation before innovating and greater financial constraint during and after innovating than firms which do not introduce process innovations.
- Firms which have introduced process innovations are more likely to report high innovation costs and to report that innovation costs are hard to control than firms which have not introduced a process innovation.
- Novel process innovators are likely to perceive significantly less financial constraint on innovation than other process innovators.
- The introduction of product innovations, novel or otherwise, is not associated with greater perceived financial or cost constraints.
- Newer and smaller firms are likely to perceive a significantly greater financial constraint on innovation than older and larger firms respectively.
- The higher the perceived financial constraint on innovation activity the more likely are firms to have sought additional finance from external sources and the less finance they are likely to have received. This is not because firms reporting a high financial constraint on innovation request less but because they are offered a lower proportion of the amount requested.
- Firms introducing innovations, either product or process, are more likely than non-innovating firms to seek additional finance and to seek significantly more of it.
- Firms introducing innovations, either product or process, do not find it more difficult than non-innovating firms to obtain additional finance. They seek and they obtain significantly more additional finance than non-innovating firms.
- Firms which were offered the full amount of finance generally perceived a lower financial constraint on innovation than firms which were offered less than the full amount they sought, or no finance at all.
- Firms which were offered the full amount of additional finance by factoring/discounting firms, trade customers/suppliers and “other private individuals” reported relatively high financial constraints on innovation, implying that the finance offered by these providers was less relevant for innovative purposes than that supplied by other providers.
- Firms which were offered the full amount of additional finance by venture capital firms faced the lowest financial constraint on innovation.

- Firms which were offered the full amount of additional finance by banks, hire purchase or leasing firms, partners/working shareholders or “other” sources also faced a relatively low financial constraint on innovation.
- Newer, larger, innovative and business service firms are more likely to approach venture capital firms than older, smaller non-innovative and manufacturing firms.
- Venture capital firms discriminate more heavily than banks against small and micro firm approaches for finance.
- The introduction of a process innovation significantly increases the probability that a SME will be offered the full amount of finance by a venture capital firm, but does not appear to increase the probability of such an offer from a bank.

Chapter Nine

North-South and Urban-Rural Variations in SME Performance, Innovation and Business Characteristics, *David Keeble*

- SME profitability levels appear to vary little across Britain's regions and between urban and rural areas.
- There is however a marked north-south gradient in SME export propensity, with much higher export levels amongst South East firms than those in Scotland, Wales and Northern England.
- Median SME employment change rates 1990-95 were zero for nearly all regional and urban-rural SME groups, in sharp contrast to the substantial employment growth recorded during the later 1980s. Nor does the current survey reveal any recent aggregate urban-rural shift of SME employment. However, employment in small town service SMEs did grow faster than in SMEs in big towns and cities, as did turnover in rural and small town manufacturing firms. This suggests some continuing through weaker urban-rural shift of SME activity during the 1990s.
- Regional and urban-rural variations in frequency of SME product and process innovations are again not large, although there is a weak north-south gradient in product innovation in business services, and a large town-rural area gradient for product innovation in SMEs generally. However, rural SMEs are significantly more likely than those in large towns to have developed product innovations which were original to their industry.
- Rural SMEs also differ significantly from those in large towns in being more likely to carry out R&D on a continuous basis, while they also employ a higher proportion of R&D staff than urban firms. There is however no evidence of a north-south differential in SME R&D activity, SMEs in peripheral Britain recording higher R&D employment and expenditure levels than those in the South East.
- There are marked differences between SMEs in South East England and the rest of Britain in terms of workforce skill composition: South East firms employ much lower proportions of manual workers, but higher proportions of managers, higher professionals and technologists. This reflects both the large number of service firms in the South East and differences in the nature of regional labour markets.
- Rural firms are significantly more likely than firms in large towns to be planning to grow rapidly over the next three years. This suggests that there may be some resumption of the urban-rural employment shift during the remaining years of the 1990s.

- Reported constraints on SME growth during the last three years vary little regionally within Britain. But rural firms report a lower level of growth constraints generally than their counterparts in the conurbations or large towns.
- SMEs in the South East and the conurbations report significantly higher mean numbers of competitors than do firms elsewhere, suggesting the existence of a significantly more open and competitive environment in these locations.
- SME ratings of competitive advantages suggest that South East and Peripheral region firms differ in the importance they place on different factors, with the former emphasising marketing skills, specialised expertise, and flair and creativity, the latter price factors, reputation and speed of service.
- Rural firms record higher ratings of the importance of most competitive advantages than other SME groups, especially conurbation and large town firms, which perhaps suggests more pro-active entrepreneurial attitudes encouraging rural SME growth.
- Collaborative activity and networking is more frequent among South East firms than elsewhere, reflecting both sectoral differences (more service firms) and greater opportunities for regional linkages.

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Andy Cosh
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Editors

The ESRC Centre for Business Research at the University of Cambridge (formerly the Small Business Research Centre) is an interdisciplinary research centre. It brings together economists, engineers, geographers, lawyers, management scientists and sociologists to study the determinants of the organisation and competitive success of nations, industries and firms. Its research programmes include study of technological change, innovation and business performance, of corporate governance, and of the development of small and medium-sized enterprises, as well as the conduct and analysis of related large-scale business surveys.

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