

COMPARATIVE PERFORMANCE OF SMALL MANUFACTURING FIRMS LOCATED IN THE MID WEST AND EAST REGION OF IRELAND*

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Introduction

This paper is one of a series of comparisons of the performance, characteristics, and problems affecting small firms located in peripheral regions of Britain and Ireland (Hitchens and O'Farrell 1987, 1988a, 1988b, O'Farrell and Hitchens 1988b). The overall aim is to identify the importance of locational disadvantages arising from manufacturing in peripheral regions of the UK and the Republic of Ireland (eg. higher transport costs to distribute to wider markets); this paper in addition to examining the problems associated with manufacturing from an Irish location in contrast to one within the UK examines the strengths and weaknesses of a location in the East in contrast to the Mid West of Ireland. Comparisons of performance and recommendations take account of existing grants and other assistance made available by Agencies to remove constraints and encourage employment growth in the two Irish locations.

The approach uses a sample design based on matching pairs of firms (Daly, Hitchens, Wagner, 1984, O'Farrell and Hitchens 1988a) in the Mid West and the East Region of Ireland. Analyses compare markets served, machinery used, labour force characteristics, quality and price competitiveness of products produced and seek to isolate their impact on company performance measured by profitability and firm growth rates. The lessons from the comparisons made between other regions are contrasted with the present findings.

Conceptual Issues

We have reviewed elsewhere the theories which have been developed in order to explain small firm growth (O'Farrell and Hitchens, 1988c) and have argued that an adequate explanatory framework does not exist. We have also attempted to make a contribution to the development of an appropriate body of theory concerning small firm growth to which the

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interested reader is referred (O'Farrell and Hitchens, 1987). To summarise briefly, we have sought to place production at the centre of the competitiveness problem for small firms. Existing theories implicitly assume that the production process is largely a 'black box' and that the firm can manufacture to the appropriate design, quality and price for its specific market segment. These models underestimate the difficulties that small firms have in meeting the competitive requirements of the market place. Firms which grow will be those which can identify and act on the key criteria in which to compete in certain segments, ie. design, price, quality, after sales service, and so on, and can then build a competitive advantage based upon those criteria (O'Farrell and Hitchens, 1987). The relative ability to meet the key criteria required by the market is the principal constraint on small firm growth and lack of skills and inadequate training at managerial, supervisory and shopfloor levels is the major proximate cause of the production problems. Hence, getting production right is always a necessary condition of growth in all firms. Other factors may also be necessary conditions for some companies in certain sectors such as, after sales service, customer liaison, selling, shortage of working capital, and so on. However, although they may be necessary conditions, they are not sufficient.

Method and Sampling Frame

Analyses are based on a sample of 29 Mid West firms¹ and 24 companies in the East Region engaged in four manufacturing industries — engineering, clothing, food and miscellaneous trades. Firms were sampled randomly within the selected product groups. Matching has been based

Table 1: *Number of Firms matched by Trade*

	Mid West	East
Precision Engineering	9	8
Clothing	7	5
Knitwear	3	3
All Clothing	10	8
Food	5	5
Furniture	3	1
Special Electronic Equipment	1	1
PCBs	1	1
All Miscellaneous Trades	5	3
All Firms	29	24

1. The sample of firms in the Mid West of Ireland was drawn from lists of the population of over 700 manufacturing establishments recorded by Shannon Development and updated every year for employment census purposes. Excluded are firms employing fewer than 3 in each area while non-grant aided firms were included. The East Region firms were randomly selected from IDA directories used for annual employment censuses. The response rates in both regions were extremely high, and in excess of 96%.

on product description, and where possible also employment size, and firm age.

Table 1 sets out those trades in which the 53 companies have been matched and upon which the following analyses and discussions are based.

The median size of the firm visited was 13 employees in the Mid West and 25 in the East. A matching of larger clothing and food firms in Dublin arose from the need to match products exactly, though all factories included in the samples are by definition small. The median date of start up was 1977 in the Mid West and 1972 in the East.

Small Firm Growth and Profitability

The central question addressed by the research is how does the firm's location influence its performance. Table 2 compares one aspect of firm performance between the two regional samples: the growth of firms over the period 1982 to 1986/7. On average, firms in the East and the Mid West samples had comparable employment growth rates, achieved by a similar proportion of firms. Sample companies in Mid West engineering, clothing and miscellaneous trades recorded higher growth rates while food firms sampled in the East Region performed better than their Mid West counterparts.

Table 2: *Small Firms Growth 1982-1986/7*

	Employment ² Growth %		Number of Companies Reporting Growth %		Sample Size	
	<i>MW</i>	<i>East</i>	<i>MW</i>	<i>East</i>	<i>MW</i>	<i>East</i>
Engineering	30	8	78	50	9	8
Clothing	87	66	90	88	10	8
Food	11	40	50	100	4	4
Miscellaneous	75	68	100	100	5	3
All Trades	55	51	81	74	28	23

These reported growth rates exceed on average those achieved by similar samples of firms drawn in the UK.

Table 3: *Profitability of Sample Companies*

	Percent Profit on Sales		Sample Size	
	<i>MW</i>	<i>East</i>	<i>MW</i>	<i>East</i>
Engineering	8.6	12.8	9	8
Clothing	6.0	5.0	10	7
Food	6.6	2.1	4	5
All Trades	7.1	6.7	23	20

2. The food sector excludes one poorly matched firm with a disproportionate 300% employment growth rate. Its inclusion raises employment change to 105% in the food sector and 62% overall.

Table 3 examines business performance from the standpoint of profitability. On average, the profit rate on sales is shown to be similar in the two regions. Engineering companies in the Mid West returned a lower rate of return while a higher rate of return was achieved by Mid West clothing and food companies sampled.

Constraints on Growth

Sample firms were asked to itemise those factors which they perceived as constraints on their growth. Table 4 shows the results for the five most important constraints considered.

Table 4: *Constraints on Growth*

	Demand	Cost Competitiveness	Labour Supply	Supply of Finance	No Desire to Expand	Sample Size
Mid West Companies	17	29	29	29	13	24
East Companies	30	35	30	25	25	20

A quarter of the firms in the East were satisfied with their present size and did not seek growth compared with 13 percent of their Mid West counterparts. A lack of demand was perceived to constrain the growth of nearly twice as many — 30 percent of the companies in the East Region, while poor cost competitiveness, difficulties with labour supply and the supply of finance were each mentioned by about a third of firms in the two samples. Difficulties regarding the supply of finance were more likely to represent a shortage of working capital: for example, to create a new brand image through advertising than for plant and machinery, and where a problem in this latter respect was specified it concerned obtaining longer term funds from the banks.

When comparisons were made on a sectoral basis, significant differences were observed in the food sector, with East Region companies finding lack of demand and the supply of labour and finances a greater constraint on growth than their Mid West counterparts. In addition, those firms in the East Region, expressing no desire for growth were found to be more concentrated in the clothing and engineering trades.

As a whole, the main difference between the Irish and British samples is that a satisfactory supply of skilled labour was cited in Great Britain as a major constraint on growth, and while, on average fewer British firms cited demand or cost competitiveness as a constraint more cited difficulties arising over the supply of finance.

Sources of Growth

The most important source of growth reported by twenty-six percent³ of

3. Percentages do not sum to 100 where sources of growth could not be categorised as described.

companies in each region was achieved by increasing sales of their usual products on existing markets. Fifty-three percent of firms in the East sold existing products into new markets, compared with only 17 percent of Mid West firms. Thirty percent of Mid West companies introduced new products or styles compared with 5 percent of their East Region counterparts. Nine percent of Mid West and five percent of companies in the East accounted for their growth success by the ability to win new orders through the introduction of new machinery and technology.

By comparison, 44 percent of British firms introduced old products into existing markets, 27 percent of existing products were introduced into new markets and 18 percent introduced new products. Only 4 percent attributed growth success to new machinery purchased.

Markets

The geographic structure of the small firms' markets is summarised in Table 5. It shows that, on average, 57 percent of the Mid West output and a smaller proportion — 40 percent — of the East Region output was sold to customers within the region in which the firm was located. Local sales (within a radius of 20 miles of the factory) accounted for 40 percent of the output of Mid West firms and 33 percent of that of East Region firms. In addition, less was exported by Mid West firms than by their counterparts in the East. The sectoral pattern follows that for the sample as a whole, with the Mid West firms having higher levels of local and regional sales, and East Region firms having a greater proportion of exports in all sectors.

Table 5: *Geographic structure of small firm markets: Percentages of the firms' output sold to local* and regional markets*

	Mid West			East		
	% local	% regional	% export	% local	% regional	% export
Engineering	63	78	3	58	68	11
Clothing	23	37	33	15	25	41
Food	41	67	4	18	20	52
Miscellaneous	35	50	33	34	37	55
All Trades	40	57	18	33	40	31
Sample Size	29			24		

*Local market is defined as the area within a 20-mile radius of the factory, while the regional market is defined as within 40 miles of the factory.

Mainland British companies sampled exported less at around 5 percent while regional and local sales (at 23 and 45 percent respectively) were closer to those of their counterparts in the East but much less than the Mid West firms sampled.

Transport Costs

Does a Mid West location affect competitiveness through higher transport costs necessary to reach extra-regional markets? Does the higher concentration of regional sales imply a locational disadvantage in the Mid West? Table 6 shows that transport costs to markets and customers outside the region (expressed as a percentage of the factory value of goods sold) are small, and while estimates made by firms in the East Region are slightly lower on average than those of their Mid West counterparts, in two sectors engineering and clothing estimated transport costs are higher in the East region. Nevertheless, in all cases the difference is small.

Table 6: *Transport costs to major market locations outside the region (expressed as a percentage of the value of goods sold)*

	Mid West	East
	%	%
Engineering	2.4	3.6
Clothing	3.0	3.6
Food 6.9	6.5	6.5
Miscellaneous	4.9	3.4
All Trades	3.9	3.2
Sample Size	23	24

No comparable British company found transport costs arising from remoteness a barrier to trade either, though the costs reported in Britain are slightly lower.

Problems arising from the company location were specified by twenty-eight percent of Mid West firms compared with 21 percent of companies in the East region. The main difficulties concerned problems with the supply of raw materials, the range of specialist equipment available locally, and logistic difficulties of breaking into new markets. These locational problems appeared to be more particular to the general Irish location rather than to any specific location within Ireland.

Marketing Methods

Just 42 percent of Mid West companies and fifty percent of the East Region firms employed passive selling and marketing techniques involving principally "word of mouth". Use of active selling and marketing techniques (such as advertising, calling on customers) was concentrated in the clothing and miscellaneous sectors in both regions. British firms were no more likely to actively sell or market their products.

Customer Dependency

Table 7 shows the concentration of the firms sales on its principal

customer. With the exception of food, companies in the Mid West were as dependent on their largest customer as those in the East, and at a level slightly lower (especially in the clothing and food trades) than is typically found in the British regions, where on average, 34 percent of such company's output was sold to its major customer.

Table 7: *Firm Dependence on Major Customer*
Percent of Sales

	Mid West	East
Engineering	32	35
Clothing	23	25
Food	3	25
All Trades	24	29
Sample Size	21	20

Extent of Competition

Businessmen were asked to identify the number of firms with which they were in direct competition. On average, East Region companies claimed competition with a similar number of firms as their Mid West counterparts but both regions specified very many fewer than was characteristic of the British regions. For example, in South England they averaged 119 for all the sectors. Such a lack of competition helps to explain the survival of otherwise uncompetitive firms (see below), (Hitchens and O'Farrell, 1987, 1988b).

Table 8: *Number of Competitors by Industry*

	Mid West	East
Engineering	9	19
Clothing	16	11
Food	7	7
Miscellaneous	10	16
All Trades	11	13

Businessmen were asked to rank the importance of price, quality and delivery (and other factors such as design and flexibility) in competing for custom and to state their own competitive advantage. In the clothing and engineering sectors, East Region and Mid West companies recognised that the foremost requirement of the market place was for a quality product. The importance of price competition was rated more highly by East Region companies in all trades, while Mid West firms on average placed its importance in third place after quality and delivery. In both regions, companies ranked quality and delivery as their main competitive advantages both placed well above price.

Product price and quality comparisons

A fundamental aim of the research is to test the competitiveness of products manufactured by sample firms in the two regions by the standards set by their British counterparts. This was achieved by asking firms in Great Britain (principally in the engineering and clothing trades) to quote a price for an engineering product or a clothing sample supplied by the Irish firm, and to give a detailed comment on the quality of manufacture including finish and where appropriate, in the suitability of design of the product in relation to their own production. In addition, assessments were made by clothing buyers at major department stores in Britain. Table 9 shows the price quotations and quality assessments made. Products are classified as of unsatisfactory quality if the person evaluating them stated that they would not pass inspection at his factory, or a buyer did not think it well made. Price competitiveness is tested as the percentage of quotations which are below the actual price charged by the Irish company making the product and compared at an exchange rate of 0.92.

Table 9: *Comparison of quality and price of products made by firms* in Mid West and the East Region of Ireland*

	Mid West Products	East Products	Mid West Products	East Products
	%		%	
	unsatisfactory		price quotation lower	
Engineering	35	46	67	82
Clothing	36	7	77	66
All Trades	35	34	70	75
Number of Assessments	165	92	96	20

*Judgments made by Mainland British Firms.

The table shows that overall, 35 percent of Mid West and 34 percent of East Region products were thought to be of unsatisfactory quality. However, important sectoral differences were noted; more engineering products in the East were criticised and considerably fewer East clothing products were found to be unsatisfactory compared with those of their Mid West counterparts. The better performance of clothing in the East reflects also the larger firm size achieved by matched firms sampled there.

Price comparisons indicated that the majority of products — 70 percent in the Mid West and 75 percent of the East — would be non-price competitive on British markets, with more engineering components in the East and fewer East Region clothing products thought expensive, compared with samples shown from the Mid West.

The reaction of manufacturers in the East Region to Mid West products

was also sought. Their opinions with regard to clothing products confirm those of the British businessmen. Two-thirds of Mid West clothing was criticised by East Region proprietors and all samples shown them thought expensive. The East Region engineers (themselves judged poorer than their Mid West counterparts by British businessmen), criticised only 13 percent of samples of Mid West engineering shown them, while they were likely to charge a similarly uncompetitive price (as compared with their British counterparts). Criticisms, centred on finish. In engineering deburring was required, edges were sharp, tools were not set up correctly, surfaces were rough, threads were poor, etc. Similarly, an unsatisfactory finish to clothing included criticisms for loose threads, "thread on buttons", machines not set up correctly, overlocking not tidy, bad finish to cuffs, sleeves too narrow, etc. Products were not criticised for being non-functional, however.

Design

Design is important to successful competition especially for the knitwear, clothing, furniture and cosmetics firms sampled. Innovative design was seen by many companies — especially in the clothing and knitwear trades — as a key factor in business growth. The Mid West clothing and knitwear firms sampled did not employ professional designers; (although in two cases the proprietors had considerable design flair). Matched companies in the East were considerably more design oriented, with 25 percent of matched East Region clothing companies employing design staff, in addition to the use of design consultants.

Quality of Inputs in Ireland

One issue which emerged in our investigations of Irish companies relates to the quality of indigenous input supplies. Twenty-five percent of the East firms and a similar twenty-three percent in the Mid West complained of the poor quality of Irish raw material supplies. For example, in the food industry, problems were reported arising from poor handling of salmon and prawns on trawlers leading to quality variability when the fish reached the factory; the proprietor of a bacon factory reported a much greater variation in the quality of pigs in Ireland, where they are graded by eye; a cosmetic firm made exhaustive and fruitless efforts to obtain adequate packaging and bottles within Ireland; two furniture manufacturers visited stated "Irish chipboard is brutal"; a knitwear proprietor criticised Irish wool and the lack of satisfactory dyeing undertaken in Ireland. The consequence of this is that it is considerably more difficult for a 'best-practice' firm to succeed in Ireland than in England because of the poorer and more variable quality of locally available supplies.

Competitiveness and Survival

The lack of price and quality competitiveness of Irish products, and raw materials raises the question of how firms survive and grow (Hitchens and O'Farrell, 1988; O'Farrell and Hitchens, 1988). Many MNE's are prepared to trade-off some degree of quality and price for the convenience of a local firm to produce inexpensive and less complex components. Few Irish sub-contractors are able to make high tolerance components, complex tools or plastic moulds at the quality standards of their British or Continental counterparts. Clothing, too, is partially protected from external penetration, both by distinctive styles, cut and fabrics required for provincial Irish markets and by the tendency of many consumers to engage in patriotic purchasing by buying Irish products. In addition, firms putting out work on a CMT basis prefer to source within Ireland irrespective of price.

Clothing firms, especially in the Mid West, were also growing on the basis of public purchasing (eg uniforms for the Army or Police), workwear contracts for large firms, or school clothing. In addition, there is a less discriminating consumer market for many products in Ireland, although in the East there are more sophisticated market segments available towards which local manufacturers may target their products, and which provide useful marketing experience for penetrating export markets (which many more East Region firms were successfully doing). A further source of demand for many firms in the sample is the 'soft' ethnic Irish-American market in the USA.

Buildings and Machinery

We examined the comparative cost and quality of the firms major assets: its buildings and machinery. Five features of the factory premises were compared: square footage of space available to each employee; numbers of premises owned and rented; rent paid; rates paid; and the number of buildings which were judged to be unsatisfactory for whatever reason.

Table 10: *Comparison of features of the Mid West and the East factory premises by sector*

	Square feet per person (median)		Percent Owned	
	MW	East	MW	East
Engineering	385	475	38	63
Clothing	180	198	30	75
Food	389	481	60	100
Miscellaneous	259(706)*	441	60	100
All Trades	222(300)*	333	43	77
Sample Size	24	23		

*When exceptionally high square footage reported by two firms are included in the sample recalculations are shown in parentheses.

Table 10 shows that, overall, the median square footage of factory space available to each employee was slightly less at the Mid West firms compared with the East, (though individual sectors lie within the averages calculated for the different British regions). Column two indicates that in this comparison there are a greater number of owner occupied premises sampled in the East. Where it was possible, rent and rates paid were compared, and both were found to be lower in the Mid West. Mid West factory rates cost about 26p per square foot while rates paid in the East Region averaged about 38p per square foot. Similarly, rents on average cost £1.68 per square foot at Mid West companies while average East Region rents were higher at £2.76. More Mid West proprietors complained about the suitability or condition of their premises and overall 21 percent found them unsatisfactory compared with 14 percent of their counterparts in the East. These percentages may be contrasted with the 38 percent of Welsh proprietors and 20 percent of English and Scottish proprietors complaining of a problem. Criticisms were shared equally between owner occupiers and those renting premises.

Machinery and Equipment

We asked proprietors to itemise their most technologically up-to-date equipment and to specify the age of machinery used in the factory. Table 11 shows that Mid West firms specified more machinery in the under five years old category in all sectors and in engineering and miscellaneous trades the percentage of machines was markedly younger. The proportion of machines 'under ten years old' was similar in both regions.⁴ These percentages may be contrasted with the older machinery found at British companies where only 31 percent were, on average, under five years old and 58 percent under ten years.

Table 11: *Vintage of Machinery (years)*

	Mid West			East		
	Under 5	Under 10	No	Under 5	Under 10	No
Engineering	53	78	9	29	76	7
Clothing	52	60	8	48	64	8
Food	46	93	5	50	83	5
Miscellaneous	81	88	5	30	93	3
All Trades	57	77	27	40	76	23

Slightly more computer numerically controlled (CNC) machines were available at the East engineering factories where on average one CNC machine was available for 8 persons engaged in the business compared with an equivalent ratio of one CNC machine to 10 persons in the Mid West. In contrast, Northern Irish and Scottish factories were found to use more CNC's while in England and Wales fewer machines were available.

4. Those findings were not affected by differences in the age of companies in the two regions.

In the other sectors, about one in five firms used computers in each region — a ratio which can be compared with one in four at English and one in eight at Welsh companies sampled. Machine charge out rates per hour were, on average, seven percent higher in the East, reflecting higher rates charged on both CNC and conventional machines. All but one of the Mid West engineers offered their machinery at hourly rates less than those of the East Region firms sampled.

Grants were available to purchase new and modern machinery in both the Mid West and the East and on average the Mid West firms sampled had received a higher rate of 46 percent compared with 38 percent received by their Eastern counterparts. Two-thirds of Mid West firms admitted they would have bought the grant-aided machinery even if no grants had been available, compared with more, three-quarters of their East Region counterparts, (the grants were, therefore, a windfall gain), while the remaining one-third of Mid West proprietors and quarter of businessmen in the East Region maintained that the grants were critical to their purchase decision. In Wales and Scotland, 75 and 80 percent respectively of similar respondents claimed they would have bought the machines had no grants been available.

Labour

We compared the cost of labour and a number of qualitative characteristics of the labour force employed by sample firms in the two regions. Table 12 shows the comparative wage cost in each region of employing the highest grade of labour on the shop floor, e.g. a skilled man in engineering, a semi-skilled person in furniture making, a machinist in clothing and so on.

Table 12: *Comparative Wages paid by Sector (IR£)*

	Mid West	East
Engineering	5.08	5.03
Clothing	3.26	3.34
Food	4.00	4.38
All Trades	4.11	4.25
Sample Size	16	17

The table shows that pay is similar in the two regions, although in clothing and food, slightly higher wages were paid in the East Region. Productivity incentive schemes were operated by 53 percent of companies in the East sample and 39 percent in the Mid West sample. The schemes predominated in the food and clothing sectors and only in the latter were significantly fewer companies operating such schemes in the Mid West.

The degree of skill on the shop floor differs by trade. While proprietors commonly describe their work forces as skilled, for example, in the production of clothing, furniture and engineering products, this is an ill-defined term. The data on the proportion of persons designated as skilled reveals nothing about the quality of those skills and the quality of training underpinning them. Criticisms of Irish products made by firms in Britain lead one to suspect a variability in quality underlying those Irish skills, in addition to deficiencies in supervision and quality control procedures. Furthermore, in the engineering sector, the fact that many Irish proprietors conceded that they could not produce to the tolerances and finish displayed by the British samples, and showed less technical knowledge of such products is indicative of problems of competence at the managerial level, a problem which was less obvious in other sectors.

Overall the percentage of persons designated skilled was similar at about a third of the work force in the two regions. In engineering, on average, three-fifths of the labour force is skilled, while in clothing 6 percent were designated skilled “cutters” and no difference was found between the regions. Only in food processing was there a difference. In the East, 28 percent of the work force were skilled butchers compared with 18 percent in the Mid West. Forty-two percent of companies in the East Region compared with thirty-four percent of sample companies in the Mid West included individuals with technical, professional or academic qualifications, compared with 43 percent in the British regions. While such qualifications were spread through the sectors in the Mid West, they were concentrated in the clothing and food sectors in the East sample. In addition, all managers in the Mid West and three-quarters of their counterparts in the East Region had attended management courses.

Similar percentages of firms — 21 percent in the East, 24 percent in the Mid West — complained of difficulties recruiting skilled labour, while only two firms in the East Region and one in the Mid West claimed to have difficulty recruiting suitable managers. In Great Britain, exactly half the companies sampled complained of labour supply problems.

Table 13: *Trainees as a percentage of production workers by sector*

	Mid West	East
Engineering	22	19
Clothing	14	9
Food	8	5
All Trades	15	11
Sample Size	27	24

Table 13 shows that a higher percentage of the workforce were engaged

as trainees in the Mid West, although the overall percentages for both regions are greater than the 6 percent typical of Great Britain. That difference is a consequence of the generous training grants received. Absenteeism was found to be greater in the Mid West where firms lost an average of 0.96 days per person per month compared with a rate of 0.59 in the East Region (reported days lost in South East England were 0.74 and in Scotland 0.45 per person per month). Labour turnover rates were found to be higher, 12.9 percent in the East Region compared with 6.4 percent in the Mid West. Particularly high and variable rates were reported in the engineering and clothing trades in the East Region.

We measured productivity at sample establishments as sales per person engaged in the business. Across all trades, this was found to be similar at IR£16639 in the Mid West compared with IR£16367 in the East. However, comparative per capita value added was found to be higher in engineering in the Mid West and significantly lower in clothing, reflecting in part differences in the competitiveness of the sectors in the two regions, as discussed earlier.

In summary, the similarities between the regions in labour characteristics and cost are more pronounced than the differences. The exceptions are a higher rate of labour turnover in the East and the presence there of more qualified managers. Perhaps the most important difference with regard to competitiveness is that wage rates are lower at matched companies in mainland Britain and although a larger number of apprentices are trained in Ireland the present authors would doubt the quality of that training and, therefore, the advantages of training grants, despite the fact that the main constraint to growth in Great Britain is an acute shortage of skilled workers.

Advisory Services

We asked firms for their reactions to three sources of business advice and service: that provided by the development agencies and those supplied by banks and accountants. The percentage of companies satisfied with the quality of advice received are shown below with comparable figures given for Scotland, Wales, England and N. Ireland. Shannon Development in the Mid West of Ireland and Irish Development Agency (IDA) in the East Region were criticised the least of all development agencies. On average, banks were rated as broadly unhelpful in the East Region though they were not frequently consulted, while in the Mid West, just over half those consulting their banks were satisfied with the advice they received from managers. In all regions, a major source of advice is the accountant and auditor and the majority of firms were satisfied with his service.

Table 14: *Percentage of Companies satisfied with advice or service received from*

	Development		
	Agency	Bank	Accountant
Scotland	25	70	58
Wales	35	52	67
England	—	63	63
N. Ireland	45	75	70
Mid West of Ireland	68	56	68
East Region of Ireland	69	25	76

Conclusions

This study has focussed on the advantages and disadvantages of manufacturing in two Irish regions: the East and Mid West. The first most important conclusion to be drawn is that the majority of products, about three quarters, made in either region would not be price competitive on wider UK markets and a little over a third would be criticised on account of poor quality too. In previous papers (Hitchens and O'Farrell 1988b, O'Farrell and Hitchens 1988b) differences in product quality have led the authors to stress the importance of training at all levels. Difficulties arising over price competitiveness, at current exchange rates, emphasise the need for improvements in physical productivity and non-price competitiveness of products.

The second most important conclusion to be drawn is that examples of firms which are competitive on both price and quality exist in each sector in both regions as judged by their British counterparts, although rather more satisfactory clothing and food companies were sampled in the East and rather better engineering companies in the Mid West.

Comparisons of the performance of matched firms indicated the same overall employment growth rate in the last five years and similar levels of profitability. East Region companies served wider markets including higher levels of export sales than did matched firms sampled in the Mid West, though the level of exports from those Mid West companies was greater than typical of similar samples drawn in Great Britain. Differences in the geographic distribution of sales were not related to disadvantages arising from higher transport costs. From both regions the cost of supplying more distant markets was similar though greater than that incurred by comparable British firms.

Company comparisons indicated no manufacturing disadvantages arising from the Mid West location. Rent and rates were found to be cheaper, machinery and equipment younger and wage rates comparable. A similar proportion of proprietors complained of difficulties recruiting skilled

persons. However, rather more managers were engaged at East Region companies. Absenteeism was found to be higher in the Mid West and labour turnover higher in the East. Productivity expressed as sales per person engaged was at a comparable level on average.

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