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DEVELOPING AN EVALUATIVE FRAMEWORK FOR INDUSTRIAL POLICY IN IRELAND: FULFILLING THE AUDIT TRAIL OR AN AID TO POLICY DEVELOPMENT?

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1. Introduction

Evaluation is one of the buzzwords of current day parlance in Irish policymaking circles. It is one of those words (like sustainable development a number of years ago) to which everyone claims allegiance, but few actually know how to define, let alone operationalise. More often than not the discussion rarely moves beyond the need to ensure transparency and probity in the allocation of public funds. What we set out in this paper are the key components of a framework for evaluation which seeks to provide an assessment of the impact of public sector interventions and, more importantly, arrive at some sense of how particular programmes and initiatives contribute wider economy effects.

For the purpose of this paper, evaluation is defined as the process of assessing the level of ‘additionality’ associated with a particular policy intervention, and our primary focus will be at the micro or firm level. The essence of the term additionality is that a policy intervention should bring about a level of economic activity

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(e.g. increased employment, improved productivity etc.) in excess of what would have happened in the absence of the intervention.

It has been estimated that approximately €5.5 billion was spent on direct financial assistance to industry by government agencies (excluding administration and support to the higher education sector) over the period 1980-2003.¹ Given the scale of this expenditure it would seem pertinent to address the very basic issues of ‘accountability’, ‘value for money’ and ‘additionality’. Despite this level of expenditure on industrial development, there has, and as is subsequently argued in this paper, continues to be a poor evaluation culture in Ireland although some progress has been made in recent years.

The paper will review the regime of evaluation in Ireland which has been associated with these industrial policy interventions by a number of agencies in the last two decades. Section 2 begins by examining the fundamental question of – ‘Why evaluate?’ This is followed in Section 3 by a review of Irish industrial policy evaluation studies and an examination of Ireland’s weak record of evaluation, whilst acknowledging the fact that, of late, some improvements have been made. This, of course, raises the question of why such a poor evaluation culture exists in Ireland. This is explored in Section 4. Drawing on the international literature, Section 5 then focuses on the key issue of what best-practice, or at the very least good-practice, evaluation entails. Section 6 concludes with recommendations for developments in evaluation practice in Ireland.

2. The Need for Evaluation

Evaluation, even in its most basic form is needed to ensure ‘value for money’, and that issues of ‘accountability’ and the ‘opportunity cost’ of spending public resources are taken into account. Good evaluation of policy interventions should therefore ensure that standard notions of cost efficiency and cost effectiveness are achieved. As ESRI (1997) suggests “...the opportunity cost of public funds is high. All public spending must be measured on a competitive basis against the best alternative use of funds” (p.xv). In these terms, financial assistance to industry may be more amenable to evaluation than other types of ‘softer’ supports. The fact that money is a measurable input, and that financial assistance (grant) may involve dedicated personnel, facilitates measurement (Georghiou, 2002). Moreover, significant resources have been spent on Irish industrial policy interventions in the form of grants, and more recently by financial aid through equity or preference share finance and loan guarantees. Data obtained from Forfás (2004) suggests that over the period 1980-2003 approximately €5.5 billion was provided by the four Irish industrial development agencies (i.e. Enterprise Ireland, IDA Ireland, Shannon Development and Udarás

¹ *Source:* Forfás Business Information System (1980 to 2003).

na Gaeltachta) in the form of grant payments and equity investments.²

The interventionist role played by the Irish government in promoting industrial development through financial assistance to firms has been significant. Private equity investment, including seed and venture funding was very limited during the 1980s and early 1990s. The latter 1990s witnessed a substantial increase in private equity investment in Ireland, with payments increasing from €17.8 million in 1996 to €32.8 million in 1997. The year 2001 saw the highest amount of equity payments, while once again there was a drop off in these types of payments in 2002 and 2003.

The Irish government's interventionist industrial policy has a long history. The first significant references to industrial policy were as far back as the Industrial Relations Act, 1946, and the Industrial Research and Standards Act, 1946. In this protectionist era, grants were targeted at indigenous industry with the first form of grant support to indigenous industry in 1952. Four years later, the Industrial Grant Act, 1956 expanded the level and range of support provided to industry by allocating grant aid to industrial development nationally (i.e. outside of the areas to which the Underdevelopment Areas Act, 1952 applied). This was followed by the Industrial Grants (Amendment) Act, 1963, which introduced training grants and grants for the expansion or adaptation of an industrial undertaking. The Research and Development (R&D) grant scheme was introduced with the passing of the Industrial Development Act, 1969. In each case, grants and tax incentives were seen as a way to "...help offset the disadvantages associated with our peripheral location in Europe and the absence of a large home market" (Government of Ireland, 1984, p. 6).

More recently, significant funding has been allocated to industrial development under the various Operational Programmes for Industry (co-financed by the EC). Even the most recent policy documents (e.g. Forfás, 2000) continue to place emphasis on financial incentives to industry. Admittedly, however, the focus is different, with emphasis on 'capability building' rather than 'capacity' expansion and support for applied R&D (Enterprise Strategy Group, 2004). The same report also stresses the need for the development of enterprise-led networks and suggests the allocation of a budget of "€20 million per annum for five years from existing enterprise development agency resources to support enterprise-led networks to foster collaboration in defined areas of activity" (p. xvii). This suggests that there has been, and continues to be, a wide range of

² It should be noted however, that the above does not provide the complete picture. For example, according to Enterprise Ireland's report for 2003, its total expenditure was €230 million, however, direct financial support to companies as recorded on the BIS was only €83 million which is thus only a component of overall total expenditure by the agency concerned. The other main costs include the whole administration of EI (national offices, international offices etc.) and support to the third level sector (various science and technology programmes etc.).

industrial policy interventions in Ireland. This alone, purely on cost-effectiveness and value for money grounds, is reason enough to evaluate the impact of such interventions.

Anderson (2000) states that evaluation should assist with both the design and implementation of programmes. A related point is made by McEldowney (1997) and Sanderson (2002) who argue that good evaluation is not an end in itself but rather a way in which policymakers improve the design and delivery of policies. Georghiou (2002) makes a related point when he argues that "...policy evaluation provides the most systematic approach to learning" (p.1).

3. Irish Industrial Policy Evaluation Studies

This section provides an overview of Irish *ex post* evaluation studies at the micro or firm level. Our contention is that a key focus of evaluation is concerned with measuring the level of 'additionality' associated with a particular industrial policy intervention so in this section we focus on those studies which address the issue of additionality.

As far back as the "Third Programme for Economic and Social Development" (1969-72) a call was made for evaluation: "A proper evaluation can be made only in light of the R&D objectives which a country sets itself, some of which are more costly to realise than others" (Government of Ireland, 1969, p.153). The "White Paper on Industrial Policy" (Government of Ireland, 1984) also emphasised the importance of 'reviewing' and 'monitoring' industrial policy. Similarly, the Culliton Report (1992) highlighted the need for broadly based evaluation policy: "Formulation and evaluation of policy for industry needs a broader approach than has been adopted in the past ... Judging whether value for money is being obtained remains difficult without in-depth, independent *ex post* evaluation of a type which is only beginning to be done" (pp. 9-10). The Operational Programme (1994-1999) also emphasised the importance of evaluation: "Effective monitoring is also necessary to ensure that commitments are honoured and programmes implemented in an agreed manner" (Government of Ireland, 1994, p. 141). More recently, Forfás (2000) also make reference to evaluation – "The shift from 'capacity building' to 'capability building' support will require commensurate upgrading in the evaluation methodologies used by the development agencies..." (p. x).

We now review some Irish evaluation studies to illustrate that, despite calls for industrial policy evaluation, it was not until the mid-1990s that evaluations of industrial policy interventions at the firm level really began in earnest. The increased impetus for evaluation during the 1990s was largely driven by the European Union (EU) who emphasised the need to assess accountability and the impact of significant EU transfers. A recent report undertaken for the European Commission set out in some detail a review of the methods employed to review the effectiveness of State aid to SMEs

(Mosselman and Prince, 2004).³ This review of evaluation practice across the Member States of the EU demonstrated a variety of approaches with many States falling well short of accepted best practice standards. In the case of Ireland it was acknowledged that the Government had by 2004 put a system in place whereby all State interventions were evaluated. However, there was no assessment of the quality of those evaluations.

A key element of each of the Irish evaluations has been the assessment of what would have happened in the absence of assistance, requiring a consideration of the concepts of deadweight and displacement. Jointly, these concepts allow an assessment of the additional impact of any policy intervention.⁴ There appears to be little confusion regarding the meaning of the term displacement. This is widely held to be the degree to which output from an assisted firm displaces output from existing firms in the market place. This is certainly not the case regarding the concept of deadweight, however. Some of the confusion may stem from the fact that the term ‘deadweight’ in the evaluation literature does not have the same meaning as the term ‘deadweight loss’ in the mainstream economics literature.⁵

Even within the evaluation literature, confusion exists as to what deadweight really means. Some studies refer to the concept as deadweight spending. For example, Picard (2001) “...*deadweight spending* – also called windfall gains – refers to the gains that firms make from the subsidies; in the MES scheme, deadweight spending is directly related to the non-additional jobs that unduly receive a subsidy” (p. 522). Heijs (2003) adopts a completely different terminology, referring to the deadweight phenomenon as ‘free-rider behaviour’. He defines free-rider firms as “...those supported firms whose innovative efforts do not depend on public aid and probably would or could have carried out the same level of innovative activity without public support” (p. 446).⁶

We have always taken deadweight to mean the degree to which economic activity (e.g., increased sales or productivity) at the level of

³ The EIM report by Mosselman and Prince also provides a thorough review of the range of evaluation approaches that have been developed over the years and sets out in clear terms what is considered to be ‘best practice’.

⁴ Evaluation should also take account of the other key (positive) components additionality, that is, multipliers and linkages but it is beyond the scope of this review to examine the latter two components.

⁵ The term deadweight loss in economics is normally associated with discussions of taxation in public sector economics. For example, Connolly and Monroe (1999) define deadweight loss as “A measure of the loss of economic efficiency associated with the imposition of a tax” (p. 196). Rosen (2005) employs a similar definition “Because a tax distorts economic decisions, it creates an excess burden – a loss of welfare above and beyond the tax revenues collected. Excess burden is sometimes referred to as welfare costs or deadweight loss” (p. 304).

⁶ However, McEldowney (1997) argued that although the concepts have much validity, it is in their application and treatment that problems and challenges may occur.

the firm would have happened in the absence of intervention by public agencies.

EX POST EVALUATIONS

To what extent has ‘additionality’ been incorporated into Irish evaluative approaches? Box 1 summarises the findings of a selection of the most significant evaluation studies that have been carried out since the mid-1990s. The Irish deadweight studies have been useful in terms of understanding and deriving headline estimates of deadweight. They have also highlighted the contribution that can be made to policy development by detailed evaluation studies. In the Irish case, a sufficient amount of evidence regarding the extent of deadweight now exists to suggest that this is an issue that should be addressed by Irish industrial policymakers.

However, Lenihan (2004) has argued that it is not sufficient to merely derive estimates of deadweight and displacement and to discuss their consequences. A further methodological innovation was undertaken by Lenihan (2004) in her Shannon Development study which estimated a Logit regression model to assess the likelihood of a firm to report deadweight. The results suggest that grant type, size of firm, whether the investment appraisal included grant and whether the firm was a first-time or repeat grant recipient all impacted significantly on the level of deadweight.

Box 1: Irish Ex Post Evaluation Studies

The Economic and Social Research Institute (1997)	Referring to the various individual Community Support Framework (CSF) mid-term evaluations , several major areas of concern emerged including deadweight and other unintended side-effects. The authors make the point that the Industrial Development Operational Programme (OP) is not only one of the largest in the Community Support Framework (CSF) but also one of the most complex. Although not providing any definite insights as to precisely how deadweight and displacement might be measured, the study nonetheless firmly highlights the significance of the concepts.
Industrial Evaluation Unit (1999a)	A meta evaluation of R&D policy and interventions briefly addresses the issue of deadweight but does not discuss the measurement of the concept. Deadweight was addressed under the heading “Common Evaluation Themes” and it was estimated to be approximately 50 per cent, and there was only passing

<p>Industrial Evaluation Unit (1999b)</p>	<p>reference to displacement.</p> <p>This study of the evaluation of micro enterprise supports across national and local development agencies, also addresses deadweight. The IEU observes that no definitions of deadweight and displacement are provided by the County Enterprise Boards and therefore the assessment of deadweight is left to the discretion of the evaluation sub-committees. Nevertheless, the study derives a deadweight estimate of 45 per cent but does not provide a quantitative estimate of displacement</p>
<p>Industrial Evaluation Unit (2000)</p>	<p>In a study of the evaluation of the Seed and Venture Capital scheme, the estimate of deadweight within the scheme was estimated to be around 60 per cent.</p>
<p>Lenihan (1999; 2004)</p>	<p>These studies have incorporated the concepts of deadweight and displacement. The methodological approach adopted was that of the self-assessment approach, involving in-depth face-to-face interviews with the managing directors of firms that received grants from Shannon Development in 1995. The definition of deadweight takes account of the various degrees or levels of deadweight as measured by time, location and scale. This facilitates estimates of ‘partial’ versus ‘pure’ degrees of deadweight.</p> <ul style="list-style-type: none"> • Deadweight estimates: 53 per cent of firms reported ‘pure’ deadweight, with only 10.4 per cent reporting ‘zero’ deadweight. • When the partial deadweight assumptions and categories are accounted for, the overall deadweight estimate rises to 78.4 per cent. • Displacement was estimated at 4.2 per cent.

Fitzpatrick Associates
Economic Consultants
(2003)

The study reviewed the role of **County and City Enterprise Boards** and raised concerns about the net impact of supports for micro-enterprise including deadweight and displacement. The study arrives at an estimate of 30 per cent for pure deadweight and 60 per cent for partial deadweight. The study also employed what is referred to as a 'less direct way' to estimate deadweight by asking recipient companies how they would have performed in the absence of Enterprise Board assistance. The study arrives at a pure deadweight factor of approximately 27 per cent and a partial deadweight factor of about 41 per cent. Regarding displacement, the study found that 57 per cent of turnover emanated from the home country of the promoter, with a further 33 per cent emanating from the rest of Ireland. They conclude by stating that this points to a potentially higher level of displacement than that estimated by Lenihan (1999).

Lenihan *et al.* (2003);
Lenihan and Hart (2004)

The impact of financial assistance to indigenous Irish firms from **Enterprise Ireland** for the period 2000 to 2002 was assessed. The study estimated deadweight to be between 46.2 and 55.8 per cent. Estimates of displacement were estimated to be between 4.4 to 12.2 per cent.

In terms of the models of evaluation practice outlined in Storey (2000) in relation to policy to support small business (see Box 2) it would appear that at best Ireland is hovering around Step 3.⁷ Having said this, a number of the normal drawbacks associated with Step 3 such as the 'respondents' effect, whereby respondents may either purposely exaggerate the effect of assistance (for fear that they

⁷ In defence of Irish evaluators it should also be acknowledged that employing control groups in the Irish case is extremely difficult. As Forfás (2003) outline "...since the vast majority of industrial projects are grant-aided in Ireland, we lack a control group of non-grant aided firms that would be used to assess the impact of grants" (p. 33).

may not receive assistance next time round) or downplay the effect of assistance (wanting to attribute success of their business to their own personal characteristics and vision etc.) and also the problems associated with timing have been overcome in much of the work of Lenihan (1999; 2004); Lenihan *et al.* (2003) and Lenihan and Hart (2004).

Box 2: Storey (2000) Six Steps of Evaluation

Step 1: Assess the take-up of schemes by eligible participants.

According to Storey (2000) "...Step 1 serves an accounting or legal function but plays no economic role" (p. 181).

Step 2: Assesses recipients' opinions. For example, in the case of firms that received financial assistance for a particular project, they are asked for their views regarding the likely impact of assistance. As Storey (2000) outlines "...Step 2 seeks to obtain the viewpoint of firms, both on the effectiveness of the scheme and on its accessibility". However, such questioning only of participant firms fails to estimate the extent to which firms were discouraged from participating in a scheme...Of paramount importance is that the views are sought of all relevant businesses – whether or not they applied" (p. 183).

Step 3: Assesses recipients' view of the difference made by the assistance. In the main Step 3 seeks to determine whether the recipient felt that the specific policy intervention made a difference and if so, to try to quantify this 'additionality' (e.g. in terms of additional jobs, profits, sales etc). In more 'sophisticated' Step 3 analyses, firms may also be questioned regarding issues of deadweight and displacement.

Step 4: Comparison of the performance of assisted firms and control groups. As Storey (2000) outlines "The effect of policy is therefore defined to be the difference between what actually happened and what would have happened in the absence of the policy" (p. 185).

Step 5: Comparison of Match Firms. This involves researchers identifying a specific control group with which to compare the assisted businesses. Matching of firms is based on factors known to influence the performance of firms.

Step 6: Taking account of selection bias. The objective of step 6 is to compare assisted with matched firms, whilst taking account of the potential for assistance to be targeted at firms which would have exhibited either above or below average performance without assistance.

4. Why Does Ireland Have a Poor Evaluation Culture?

Despite rational arguments for engaging in thorough policy evaluation, there seems historically to have been a poor culture of evaluating industrial policy interventions in both policymaking and academic circles in Ireland. This is all the more surprising given the relatively strong tradition of evaluation in the UK, and the strong historical links between policy and research communities in Ireland

and the UK. Some connections are found, however. For example, Taylor (2002), citing Foley (1992), suggests that “Given the long tradition of regional policy in the UK, it is not surprising to find that there has been considerable interest in developing evaluation methods” (p.173/174). In fact, Taylor (2002) argues that interest in policy evaluation in the UK began in the 1960s (through the work of Needleman and Scott (1964) and McCrone (1969), and that UK evaluation gained momentum in the 1970s following the seminal articles of Moore and Rhodes (1973; 1976).

One possible explanation for the failure of the Irish evaluation/policy community to follow the UK tradition may be the characteristics of the Irish economics research community. In particular, although macro-economic analysis has a strong tradition in Ireland, applied micro-economic analysis – particularly industrial micro-economics – is less well developed. The ESRI, for example, has over the years maintained a sizeable research team focusing on macro-economic analysis and forecasting, but has placed less emphasis on firm-level analysis. It could also be argued that the lack of evaluation culture in Ireland is related to the small size of a country. Some other small countries – most notably Israel – also have relatively little tradition of policy evaluation. Other reasons for Ireland’s weak tradition of policy evaluation put forward by Ruane (2004) included: a weak history of planning; inclusive, negotiated agreements which may lead to compromise solutions and a political tradition of ‘client-focus’ which may bias against economic rationality.

More recently a number of factors have contributed to an increased emphasis on evaluation in Ireland. Most notable has been pressure from the EU in response to the scale of allocations under the Structural Funds for the period 1989-93 (ESRI, 1997).⁸ The 1990s also saw the establishment of the Industrial Evaluation Unit (IEU) and more recently the National Development Plan/Community Support Framework (NDP/CSF) Evaluation Unit. In addition, the Irish Evaluation Network was established and held an inaugural national conference in 2004.

There have also been, of late, some encouraging signs to suggest that the Irish policymaking community might be moving closer towards the creation of an ‘evaluation’ culture. This is highlighted by the report to the Minister for Finance by the Expenditure Review Central Steering Committee (2004). This notes that a structured series of practical training has been delivered to around 110 staff involved in the conduct of expenditure reviews. The report also indicates that in 2003, the Centre for Management and Organisation Development (CMOD), Department of Finance, introduced two

⁸ There is a danger that engaging in evaluation as requested to do so by the EU may not be the optimal way to evaluate. As Diez (2002) outlines “...In fact in a great number of member states, evaluation practice is exclusively linked to fulfilling EU regulations. Consequently, there is no concern for using evaluation as a process directed at knowledge creation and learning and the improvement of regional policy” (p. 301).

new civil-service wide programmes in public policy analysis. These programmes, which are offered in conjunction with the Institute of Public Administration and University College Dublin, are available at Diploma and Masters level.

**5.
Good and Best
Practice
Evaluation
Approaches:
Moving
Beyond the
Audit Trail**

Storey (2000) argues that a prerequisite to any evaluation is that clear objectives be specified. More precisely, he argues about the "...impossibility of conducting an evaluation in the absence of clearly specified objectives for the policy concerned" (p. 177). In fact, he goes so far as to say that in an ideal case "...objectives should be specified in a quantitative manner in the form of targets" (p. 177).⁹ In light of this, we review briefly how Irish industrial policy has sought to define its objectives in clear measurable ways. Looking back at the Industrial Grants Act (1956) it can be seen that the objectives for that industrial policy approach were very vague. The Act proposed providing grant-support to industries "likely to provide employment on a substantial scale, likely to make available in the state substantial quantities of the commodity, or likely to provide an opportunity for developing an export trade" (Industrial Grants Act, 1956).

Similarly, the R&D grants scheme that was operationalised through the passing of the Industrial Development Act (1969) had equally sketchy and ill-defined objectives. The scheme emphasised that R&D grants would have as their main objective "the promotion and development of new or improved industrial processes, methods or products in the State, and in particular, such processes, methods or products as are likely either to involve the use or development of local materials, local agricultural produce or local natural resources to offer prospects of expansion in existing industries or prospects of provision of new industries" (Industrial Development Act, 1969). It is clear that this objective offers no basis for quantification making any subsequent evaluation difficult.

Once again, the 'Operational Programme for Industrial Development' (1989-1993) had very broad and, we would argue, unquantifiable objectives. In terms of national economic objectives, for example, the programme stated: "The maintenance and creation of employment and the reduction of unemployment are the primary economic policy objectives of Government" (Government of Ireland, 1989, p. 5). In terms of achieving this, the key objective of industrial development policy was "...to promote the development of a strong internationally competitive enterprise sector in Ireland comprising both indigenous and non-indigenous companies which will make the maximum contribution to self-sustaining employment growth" (p. 5).

⁹ The 1986 NESC report stated that "a crucial determinant of the success of industrial policy in obtaining its objectives will be the effectiveness of the monitoring and control mechanisms which are put in place" (p. 275).

Even in the most recent statements of industrial policy by the Irish government, policy objectives are still only broadly defined. In terms of R&D, for example, “Early and decisive action, towards developing an ‘Information Society’; where the use of advanced information and communication technologies in everyday life is widespread” was the broadly stated objective (Forfás, 1996, p. 14). At the same time there is clearly recognition of the need for quantified objectives. A recent ESG (2004) report, for example, recommends the development of Enterprise-led Business Networks. In outlining the three fundamental conditions that underpin enterprise-led business network initiatives in Ireland, the report highlights the importance of clearly specifying objectives: “State funding should be made available on the basis of defined and independently assessed competitive proposals, designed to meet clearly identified and measurable business objectives” (p. 71).¹⁰

BEST-PRACTICE INTERNATIONALLY

Considerable progress has been made in recent years regarding the evaluation of Irish industrial policy initiatives. While much of this has been linked to complying with EU regulations, there is a growing awareness of the value of such research in view of increased fiscal constraints and the fundamental principles of ‘opportunity cost’ and ‘accountability’. Nevertheless, in moving forward, it is imperative to look beyond the Irish context to best-practice international studies in terms of developing appropriate methodologies for future evaluation studies (see Mosselman and Prince (2004) and English Partnerships (2004) for comprehensive reviews of approaches with the latter paying particular attention to assessing the additionality of spatial interventions).

Increasingly, best-practice in evaluation research is pointing towards the use of econometric treatment models, e.g. 2-step Heckman models, which account for ‘selection’ and ‘assistance’ effects (see Roper and Hart, 2003; Wren and Storey, 2002; Roper and Hewitt-Dundas, 2001; Roper *et al.*, 2001 and Turok and Raco, 2000). These approaches use econometric methods to separate the ‘assistance’ and ‘selection’ effects, i.e. to isolate that element of the enhanced performance of assisted companies due to the assistance received and that element actually related to the selection of assisted companies. Two types of selection bias are usually taken into account. First, assisted companies may possess certain characteristics (for example, highly motivated, well educated, certain age, certain type of background etc.) and may, therefore, be more likely to apply for grant assistance in the first instance. A similar point is made by

¹⁰ Moreover, it is not sufficient to define only ‘final’ objectives or anticipated outcomes of a particular industrial policy intervention. Policymakers also need to define the short term and intermediate objectives of the policy that are to be met before reaching the final objectives. McGuinness and Hart (2004) make a related point when they emphasise the “...importance of capturing intermediate or end outcomes (for example, rising regional productivity) as opposed to simple outputs (for example, x number of firms experiencing a rise in productivity)” (p. 841).

Turok and Raco (2000) who argue that “Some practitioners believe that growth firms are self-selecting because their owners have a stronger desire to expand and are more proactive in seeking out assistance” (p. 412). The key problem is that, without correcting for selection bias, evaluators may overestimate the effect of the programme on participants. Second, bias may emanate from the fact that development agencies may be more inclined to provide financial assistance to certain types of firms than others (e.g. firms whom they consider to have the maximum growth potential). More recently, McGuinness and Hart (2004) have moved beyond a simple ‘assistance’ parameter in the multivariate analysis and sought to investigate the ways in which different types of assistance (e.g., marketing support and R&D grants) and their lagged structures may impact upon business performance. In so doing they also undertook tests for selection bias among assisted firms receiving particular types of assistance.

The Small Business Research Centre (Kingston University) and Warwick University (2004) set out an evaluation plan for the recently established Regional Venture Capital Fund (RVCF) programme in the English regions co-funded by government. The study proposes to combine an econometric modelling approach (showing how the introduction of a new venture capital fund affects the supply and demand for equity finance at the regional level) with detailed case studies of recipients and non-recipients of RVCFs in order to evaluate the net additionality of the RVCF programme. This reflects what Curran (1999) describes as a ‘Step Seven’ evaluation in the language of Storey (2000) combining quantitative and qualitative perspectives. This type of approach is endorsed by Mosselman and Prince (2004) in the review of evaluation methods for state aid to SMEs.

Best-practice internationally also focuses on the notion of ‘behavioural additionality’ (see for example, Georghiou 2004 and the SBRC and Warwick University, 2004). The idea here is that upon receipt of financial assistance for example, firms may employ a different strategy and hence firms behaviour may be affected *vis-à-vis* what was the case prior to government intervention. McEldowney (1997), although not using the above term directly also makes reference to this possibility when he argues that a particular training programme encouraged firms to “...adopt a more structured approach to training with a greater emphasis being placed on management development measures than before” (p. 186). The implication here is that direct economic impacts such as increased levels of productivity may not be observed in the time period of the evaluation (see, for example, Roper and Hart, 2003) but that the behaviour of firms was radically changed in terms of their desire to introduce new ways of working and undertake R&D. Interestingly, it was the case studies undertaken as part of this study which were able to provide the evidence on behavioural additionality and not the more formal econometric modelling approach. It is imperative that

evaluation methodologies endeavour to capture these changes in behaviour.

In that vein it is important to note that in the case of Ireland, Fitzpatrick Associates Economic Consultants (2004) have incorporated 'behavioural additionality' in their review of the Research Technology Initiative (RTI) competitive scheme operated by Enterprise Ireland. The report states that one of the reasons for focusing on 'behavioural additionality' is to "...recognise the general Enterprise Ireland focus on capability as well as capacity" (p. 3). In summary, the Fitzpatrick (2004) study found that higher levels of behavioural additionality were associated with firms possessing the following characteristics: new R&D performers and small and large sized companies.

6. Conclusion

The overriding conclusion of the paper is that until recently the evaluation of Irish industrial policy interventions has been limited, especially when one considers first, the growth and proliferation of interventionist industrial policy measures over the last fifty years, and second, the fact that frequent changes in the focus of industrial policy interventions have taken place (e.g., the movement away of late from supports for 'capacity' to 'capability' building) without much evidence of longitudinal impact or learning. Nobody could argue against the fact that engaging in evaluation is methodologically an extremely challenging task. As discussed in this paper, there is an obvious need for, and inherent benefits to engaging in policy evaluation. The real difficulty for evaluators is 'how' to evaluate. This paper has brought together a review of the latest literature on evaluation methodology and should form a baseline for future evaluation studies in Ireland. The recent establishment of the Irish Evaluation Network has the potential to provide an important forum for the discussion of such issues. The focus of this paper has been on *ex post* evaluation, which is key to assessing the level of 'additionality' associated with a particular industrial policy intervention. However, *ex ante* evaluation of the likely additional impact of government interventions is of equal importance and it is our view that greater effort should be invested in this approach (see for example, Roper *et al.*, 2004).

The methodological rigor of Irish industrial policy evaluations has been improving in recent years. As we have shown in this paper international best practice has developed at pace in recent years and it is important that the Irish evaluation community continue to embrace these best-practice methodologies. It is important to stress that discussion in this paper supports the adoption of evaluation methodologies that serves both the needs of policymakers and the academic community. Too often evaluation methodologies have been developed which are so sophisticated that they cannot be implemented in practice due to the absence of appropriate data. One should learn from past mistakes made internationally in this regard (Barnekov *et al.*, 1990 and Shefer and Kaess, 1990).

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