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The measurement of success in a business incubation project

Pam Voisey and Lynne Gornall

University of Glamorgan, Pontypridd, UK, and

Paul Jones and Brychan Thomas

Business School, University of Glamorgan, Pontypridd, UK

Abstract

Purpose – The purpose of this paper is to examine the impact and success of a business incubation project on its participants. The study aims to consider the impact of the project in terms of developing and supporting entrepreneurial activity within Wales. It seeks to build on and enhance existing business incubation literature and contribute to the field by identifying “good” practice and considers the measurement of success within such projects.

Design/methodology/approach – This study employs an individual case study methodology which evaluates all aspects of the Graduate Teleworking Initiative (GTi) project. A range of qualitative and quantitative methods is utilised to capture the views of aspiring entrepreneurs. In addition the progress of entrepreneurs is compared with “distance travelled” methodologies developed by other EU programmes, using the experiences of GTi businesses as individual case histories. In addition, this paper looks at additional ways to measure the success of this type of project, based on a study of the current academic literature and work currently being undertaken with funding agencies in Wales in respect of economic regeneration. The case study method is recognised as the most effective research strategy to capture the “rich” experience of complex projects.

Findings – The study finds that, if incubation facilities are to receive continuing support, the measurement of success needs to be broader than a set of statistical outputs. The academic literature queries whether business incubation works, and invites us to decide if the end result is of value or not. This paper considers additional ways to measure the success of this type of project. Applications for public funding in support of business incubators as part of an overall economic regeneration strategy should be able to provide a wider evaluation of effectiveness, and this paper seeks to develop a model to this purpose, to assist the ongoing development of incubator facilities in Wales.

Practical implications – This study will be of interest to business incubation providers and entrepreneurial researchers in identifying valid and achievable success measures and should inform developments in this field.

Originality/value – The paper provides a unique insight into a successful business incubation project and identifies the key to its on going success. Furthermore, the study identifies generic measures of success for a typical business incubation project based on the GTi experience and a detailed investigation of alternative business incubators.

Keywords Business development, Entrepreneurialism, Graduates, Teleworking, Value analysis, Wales

Paper type Research paper



Introduction: the Graduate Teleworking Initiative business incubation project

Since 1999, the University of Glamorgan (UoG), located at Trefforest in the South East Wales Valleys, has operated a business incubation facility designed to encourage and support students and graduates in entrepreneurial activity, namely new business start-ups, retaining valuable skills and increasing the business birthrate in the South East Wales Valleys. The impetus came from the Telematics Development Group, part

of the Information Systems and eLearning Services (ISeLS) department, proposing the creation of a state-of-the-art teleworking facility for students and graduates wishing to start a new business or take on contract work. Removing the necessity for investment in business-level information communication technology (ICT) meant that entrepreneurial students and graduates could “test the water” without some of the financial risk normally associated with business start-up. The original funding and support came mainly from the UoG, Welsh Development Agency (WDA) and European Regional Development Funds (ERDF) under Objective 2. The Graduate Teleworking Initiative (GTi) (1) pilot project ran successfully for 18 months, clearly demonstrating the benefit of providing business facilities, and led to the development of a second phase, widening access to the facility to include new business start-ups from entrepreneurs in EU Objective One designated areas in Wales. This GTi (2) project was approved for ERDF Objective One funds, supported by UoG and the WDA Wales Information Society (WIS) programme for a period of three years, completing in January 2005.

The GTi business incubator is situated in a business park, not on campus, clearly establishing its business focus. The “GTi model” is hotdesking – a professional, open-plan office environment in the region of 2,000 square feet, available 24/7. Computer hardware is provided in the form of Macs and PCs along with multimedia and web authoring software, internet access and telecommunications. Presentation equipment is available for loan and a GTi meeting room meets a number of needs (client presentations, meetings, quiet space). A full-time business support manager provides immediate advice and guidance, and signposting to appropriate external business support. Private sector sponsors provide GTi entrepreneurs with initial advice (legal, accounting, human resources (HR)) without charge, and deliver seminars on current issues. University expertise is available for advice on good practice (Disability Discrimination Act, Freedom of Information Act), manufacturing materials, product development and prototyping. On the basis of the project funding arrangement, no fees or charges have been levied on the businesses for access to the GTi centre.

Access to GTi is granted on the basis of initial referral from a trusted source – including University staff, enterprise agencies – and interview. Subsequently the new business may access the facilities on a needs basis: use of the business address; meeting room; regular or occasional use of hotdesking and related facilities. The GTi centre is home to companies representing a wide variety of business sectors and this is reflected in the diverse ways in which businesses use the facilities.

Business incubation: a place and a process

In the UK, the DTi-funded Small Business Service (SBS) has identified the process of business incubation as a powerful tool in overcoming the pitfalls of starting and growing businesses (SBS, n.d.), both in the case of high-tech businesses and a wider range of small businesses (SBS, 2001, p 13). As such, incubation is now viewed as a key component of regional and national economic development strategies, supporting and accelerating growth across all sectors (Harman and Read, 2003). State intervention is aimed at creating public/private networks at a local level which stimulate incubators and the pre- and post business creation processes associated with them (Albert and Gaynor, 2003, p. 16).

The concept of nurturing new and young businesses is described as appearing straightforward but in reality is complex in structure and execution (Lalkaka, 1997, p. 1). In the UK, university-linked incubators are increasing in number and operate alongside private and public sector incubator facilities. Stemming from earlier small to medium-sized enterprise (SME) programmes, business incubation is a relatively recent and innovative system having its own diverse characteristics, though no formal or legal definition of an incubator exists (Lendner, 2003, p. 3). Business incubation has been described as: “a range of business development processes that are employed to support the growth of small, new start and young business ventures” (UKBI, 2003)[1]; places where an environment for the encouragement and development of entrepreneurial skills is a common objective; entities that offer a number of services to entrepreneurs who are unable to otherwise source them; “an enabling technology” (Hackett and Dilts, 2004a); and, “a strategy for facilitating new business development rather than a strategy for developing real estate” (Hackett and Dilts, 2004a). Malan (2001) further asserts that “business incubation is a process, not a place”. Universities in Wales have a “Third Mission”[2] and business incubation aimed at encouraging and supporting entrepreneurship among graduates is becoming an integral part of this activity.

This paper examines the impact and success of the GTi business incubation project upon its participants, and also, the impact of the project in terms of developing and supporting entrepreneurial activity within Wales. It builds on and enhances existing business incubation literature and contributes to the field by identifying “good” practice and considers the measurement of success within such projects.

Design, methodology and approach

The study employs an individual case study methodology which evaluates a number of aspects of the GTi project. A range of qualitative and quantitative methods was utilised to gather the views of aspiring entrepreneurs, including primary data on project outputs and usage of the facility. In addition the progress of entrepreneurs will be compared with “distance travelled” methodologies developed by other European Union (EU) programmes, using the experiences of GTi businesses as individual case histories. In addition, the paper looks at additional ways to measure the success of this type of project, based on a study of the current academic literature and work currently being undertaken with funding agencies in Wales in respect of economic regeneration. The case study method is recognised as the most effective research strategy to capture the “rich” experience of complex projects. (Eisenhardt, 1989; Yin, 1994).

Literature review

Business Incubation is a unique and highly flexible combination of business development processes, infrastructure and people, designed to nurture and grow new and small businesses by supporting them through the early stages of development and change (UKBI, 2004).

The traditional model of measuring success in any business organisation is often as straightforward as reading a profit and loss statement. Business incubation facilities are sometimes structured as businesses in the conventional sense, but Hackett and Dilts (2004b) report that the majority of incubators are non-profit entities. Even so, there is a trend now for non-profit organisations to emulate the private sector in such

areas as strategic planning, finance and organisational development. However, seeking to apply this model in measuring “success” can be a problem (Sawhill and Williamson, 2001). Measuring success in a nonprofit business incubation project, particularly one having a “targeted” set of outputs agreed as a basis for the allocation of public funds, could be viewed as a relatively simple exercise. The monitoring, collection and reporting of data relating solely to those targets (beneficiaries, finances) indicate top-line success or failure (WEFO, 2005). Regional policies for economic regeneration are particularly amenable to quantified results, but the choice of appropriate indicators includes a qualitative input. In the lifetime of the GTi project, it has been observed (Howard, 2005) that some of the positive outcomes, such as benefiting from access to ideas and knowledge within other incubating businesses (UKBI, 2004), do not always show up in the statistical outputs periodically reported. The question arose: are there additional criteria by which business incubators measure and report activity – how can success be measured and reported?

A review of the academic literature was undertaken to establish what (additional) criteria were in use by the incubation community – either UK based or internationally – to measure their success. It was clear from the outset that very little is written about hotdesking incubation facilities. Most references to “hotdesking” facilities concern rentable office space, on much the same basis as hotel accommodation, and certainly not the model of business incubation under consideration here (www.eoffice.de/hotdesking). Over the last 30 years different types of sponsors, public and private, have created an increasingly diversified incubator landscape. The trend is not only towards a rise in the number of incubators but also an ongoing diversification of configurations, as better informed entrepreneurs demand real value, added advice and services (Albert and Gaynor, 2003, p. 10), and incubator managers invent as they go along, learning and disseminating by networking (Allen and McCluskey, 1990, pp. 1, 2). This may well explain why even the task of defining business incubation precisely is difficult – incubators are a very heterogeneous group. It may be that a hotdesking model of incubation is not seen as a separate category in the taxonomy of incubation facilities, or that it has not been separately reported to date.

Policy guidance on soft outcomes uses the terminology of “hard outputs”, “soft outcomes” and “distance travelled” (giving the idea of added value) in similar, but not necessarily identical ways (WEFO, 2005; Dewson *et al.*, 2000). “Outcomes” are differentiated from “outputs”. An output is usually the tangible service that a project delivers, and an outcome is a wider “behavioural” change that results from the output. Further, “hard outcomes” are the clearly definable and quantifiable results which show progress made, and “soft outcomes” represent the intermediate stage on the way to achieving the hard outcome. Typically this would include personal skills such as improved financial/business planning or management skills (WEFO, 2003). However, these may be termed “indicators” (Dewson *et al.*, 2000). The term “distance travelled” refers to the progress that an individual makes towards the harder outcomes as a result of the project intervention. The acquisition of certain soft outcomes may seem insignificant, but for some individuals the leap forward in achieving these outcomes is immense (Dewson *et al.*, 2000).

In the context of business incubation, qualitative data on soft outcomes can be used to measure and demonstrate success in a number of ways: to highlight individual’s progress; show project staff what progress is being made; support for project

development/adjustments; demonstrating additional benefits of the project to stakeholders and funders (WEFO, 2003). Consideration of soft outcomes also provides a valuable context for clients' needs and progress, providing a truer, more rounded picture of successes (Dewson *et al.*, 2000).

Business incubation: finding the formulae

Not all models of incubation meet with unqualified approval. Based on 15 years of incubator management and programme developments, Meeder (1997) suggests that incubators fall into three categories, "the good, the bad and the ugly". "Good" incubators are said to have a minimum of 3,000 square metres net leaseable space, are primarily identified by the sponsor's clientele and the staff as deliverers of locally unique service programmes (community problems such as education, safety and security, access to money, labour force supply, housing, crime, etc.). They have healthy cash flows from rentals, utilities, fees for businesses support services and other contributions. "Bad" incubators are said to lack the foregoing characteristics and often metamorphose into multi-tenant commercial property. Failure is attributed to lack of comprehensive business support, predominantly service rather than manufacturing-based clients, and badly designed or specialist incubation premises. These factors affect the amount of income the incubator is able to generate (Meeder, 1997). The "ugly" may have financial problems related to the physical premises in which they operate, such as the need for remedial work on buildings (environmental, historic, legislative), and escalating utility bills. Clearly, as a European-funded project supporting start-up businesses on a no-fee basis, the GTi project would not fall into any of these categories.

In a systematic review of business incubation research, Hackett and Dilts (2004b) report that financial dependency places incubators in a "politically charged environment" where constantly demonstrating the "success" of the incubator and the incubatees is necessary to justify continued funding (Hackett and Dilts, 2004b). Currently one of the key issues for publicly-funded projects in Wales is the drive towards less dependency on public funds and a move to self-sufficiency, if not profitability. Business incubators, for the most part, have been established as publicly-funded vehicles for job creation, economic regeneration or commercialisation of University innovations, but despite any intention to be profitable, this has not been the case for the majority of publicly funded incubators (Bearse, 1998 in Hackett and Dilts, 2004b). Demonstrating efficiency and monitoring value for money are still part of the measurement toolkit for publicly-funded initiatives, but there is a shift towards partnership, collaboration and the adoption of new processes as changes occur in the economic landscape (Murtagh and McKay, 2003).

Looking at the role of incubators in the entrepreneurial process, Peters *et al.* (2004) cite the past research of Wiggins and Gibson (2003) showing that incubators must do five things well in order to succeed:

- (1) establish clear metrics for success;
- (2) provide entrepreneurial leadership;
- (3) develop and deliver value-added services to member companies;
- (4) develop a rational new-company selection process; and
- (5) ensure that member companies gain access to necessary human and financial resources.

Peters *et al.* (2004) also report on data indicating the services in point (3) that distinguish the success of incubators relates mostly to the presence or absence of coaching and access to networks.

Arguably, the role of the incubator is to deliver a community or regional strategy to promote the survival of new enterprises (Hackett and Dilts, 2004b), via an agreed (and probably evolving) process. Campbell *et al.* (1985) suggest four areas where the incubation process creates value:

- (1) the diagnosis of business needs;
- (2) the selection and monitored application of business services;
- (3) the provision of financing, and
- (4) access to the incubator network.

Even if such services are under-utilised at first, the availability of such services will induce “self-reflexive consideration” on the part of incubatees as to what is needed for their new venture to develop (Hackett and Dilts, 2004b).

There is little work available specifically on how incubating businesses develop within the incubator – the experience of the incubatees, even though much has been written about new business development in entrepreneurial research papers. Reviewing the literature, Hackett and Dilts (2004b) postulate that there are a number of key factors through which incubators contribute to incubatees’ success:

- providing dynamic, proactive feedback to incubates;
- assisting incubatees with business planning;
- encouraging incubatees to develop control systems during the early stage of incubatee development.

Hackett and Dilts (2004b) further describe the type of businesses applying for incubation and a range of outcomes for those businesses, as shown in Table I.

Included in the list of successful outcomes for the incubator, is the business that does not survive the incubation process, but ceases operations as quickly and cheaply as possible when it becomes apparent that there is not sufficient potential to justify continued investment. The positive result for the incubatee is the potential to

Businesses applying for incubation	Possible outcomes for incubated businesses
Those that do not need incubation	Incubatee surviving and growing profitably
Those that cannot be helped through incubation	Incubatee surviving and growing towards profitably Incubatee has survived, no growth, no profit = (“zombie business”)
Those that should be incubated through some resource gap: the “weak-but-promising” having a good business case, but lack of resources	Incubatee operations terminated while still in incubator, but losses minimised Incubatee terminated while still in the incubator and losses were large

Source: Hackett and Dilts (2004b)

Table I.
Types of applicants and possible outcomes

“reincarnate” at some future time, entrepreneurial lessons having been learned (Hackett and Dilts, 2004b). Other measures of an incubator’s success are described as the creation of a responsive business consulting network; participation of financial intermediaries in capitalisation; most incubating businesses are start-ups as opposed to existing SMEs; and collaboration between incubating businesses on new and joint ventures (Campbell and Allen, 1987).

In 2004, UKBI, the lead body for business incubation in the UK, developed a benchmarking framework in consultation with a number of UK-based incubators, while acknowledging that the diversity (and complexity) of incubation poses problems for the development of a “one size fits all” framework (www.ukbi.co.uk). UKBI identifies distinct stages in the lifecycle of new incubators – foundation, development and mature incubation – highlighting a number of key factors/processes involved in each stage.

Barrow (2001) lists critical elements of successful “incubation programmes” (stakeholders; local demand; a range of facilities and services; effective management; throughput of businesses; economic impacts), while raising the underlying question of whether business incubation works. He invites us to decide on the basis of case studies whether the end result is of value or not.

The UoG’s hotdesking business incubation facility provides an interesting case study to measure the success of this particular model of incubation environment. The results of this analysis are presented here.

Findings

The research identified five things an incubator must do well to succeed (Peters *et al.*, 2004). The policies and practices of the GTi project address these issues within the remit and structure of the project. The success of business incubators has been widely reported within the academic literature since the 1990s (Barrow, 2001; UKBI, 2004; Harman and Read, 2003). In the higher education sector, new business incubation projects have been developed to encourage and support entrepreneurial activity by students and graduates. However, there is a considerable degree of diversity in the factors utilised to measure the success amongst these projects. Within most incubators there are targets and outputs to be achieved thus project evaluation is a relatively simple matter of data collection by which success could be said to be measured. However, if incubation facilities are to receive continuing support from funders and stakeholders, the measurement of success needs to be broader than a set of statistical outputs. Some of the academic literature queries whether business incubation works and invites us to decide if the end result is of value or not (Barrow, 2001), while others posit that future growth of a stable, modern small business sector requires the tailored support of business incubators – promoting innovation, facilitating consultancy and research services, overcoming obstacles to business development and raising the quality of business operation (Lalkaka, 1997, pp. 5, 6). This paper considers additional ways to measure the success of this type of project,

Applications for public funding in support of business incubators as part of an overall economic regeneration strategy should be able to provide a wider evaluation of effectiveness, and this paper seeks to develop a model to this purpose, to assist the on-going development of incubator facilities in Wales. The next section explores the impacts of the UoG’s GTi business incubation facility.

Enterprise demographics

A total of 30 enterprises participated in the study, represented by 32 individuals who responded to the questionnaire. The following data refer to the enterprises represented, unless otherwise stated:

- *Route to GTi.* A total of 12 of the respondents were referred from university staff; 14 from enterprise agencies; four from other incubating businesses; two from the university web site ($n = 32$ respondents).
- *Length of time in incubation.* A total of 19 had been working with GTi since 2004 while the remainder (11), had been registered at GTi since 2002 ($n = 30$ enterprises).
- *Sectors/business activity.* Ten enterprises were involved in digital media (e.g. web design/graphics); six in service related (business to customer (B2C) or business to business (B2B)); six in consultancy; five in retail/e-commerce; two in manufacturing/product design; and one in technology software development activities. Some of the businesses' activities covered more than one category: the main business activity has been noted ($n = 30$ enterprises).
- *Legal constitution.* A total of 16 enterprises identified themselves as sole traders, ten as business partnerships and four as having more than one employee. Of the enterprises, 14 were incorporated as limited companies/registered with Companies House, with four VAT registered ($n = 30$ enterprises).
- *Financial impact.* Value of sales since registration at GTi is as follows: 17 businesses reported as "trading" with a cumulative sales value of £523,000, with the remainder "still in development". The number of clients secured by GTi businesses is reported to cover a range from one to over 100, with the majority falling into the range of less than ten. Profitability is mixed reflecting the stages of development of the respondent's businesses, covering the range £5,000 to £50,000 + ($n = 30$ enterprises).

Usage of incubator resources

Individual responses are reported here, as a number of businesses operate as partnerships of two or three people. Four respondents (12.5 per cent) reported daily usage of the incubator; 14 (44 per cent) reported weekly usage; 10 (31 per cent) noted that they used the GTi on a monthly basis, with the remainder (12.5 per cent) visiting the GTi once in three months or less. These enterprises accessed the GTi's facilities for a number of purposes as identified within Table II. Usage varies according to need and at what stage of development the business is, but they can be summarised as utilising physical resources (e.g. rooms, IT equipment); operating professionally; information/coaching/mentoring and networking.

Additional data on use of the GTi facilities is recorded electronically by individuals as they leave the GTi facility. A "TalkSign"[3] interactive feedback device/board provides the GTi management team with data recording for example, type of user (regular/occasional); time of day; main software/facilities used; access problems. A typical monthly report in 2005 recorded 82 individual visits, 35 per cent of which were all-day sessions. These data are used in stakeholder reports to support continued operation/applications for funding.

Feature	Responses	% of total sample
1. Use of meeting room	13	41
2. Networking	13	41
3. Professional office environment	11	34
4. Telephone/e-mail/phone/fax/post and poste restante	9	28
5. GTi support through staff direct or information gathering	9	28
6. Computers/IT	8	27
7. Credible business address	9	28
8. Good access to local info and support – for example the LA grant body is in the same building, and 4 miles from UoG	4	13
9. Internet research	3	10
10. Legal, licensed software	3	10
11. Inter trading	1	3
12. Workshops/seminars	1	3
13. Use meeting rooms to provide business service, e.g. training session	1	3
14. Learn/update computer skills through use	1	3

Note: $n = 30$ enterprises

Table II.
Usage of GTi facilities
and services

Benefits of the business incubation process

Respondents were asked to identify the business benefits gained from accessing the GTi incubation facility. The results shown in Table III were obtained.

Respondents identified the most valued aspects of the incubation facility and process as the GTi network of advice and support (75 per cent); access to professional office and ICT (75 per cent); availability of a meeting room (47 per cent); credible business address (28 per cent), and forming collaborative new ventures with other incubating businesses (6 per cent).

Additional comments reflect the growth of some of the businesses and the need for dedicated office space. Seventeen per cent (17 per cent) of respondents indicated their wish to stay within the GTi incubator environment as their business moved to the next stage. When asked if they would be pay for access to the GTi facilities, 22 (69 per cent) said they would be willing, subject to ability to pay. Ten respondents (31 per cent) felt that payment would not be appropriate in a hotdesking environment.

Actual business benefit

Survey respondents were asked to identify what difference the GTi project has made to their businesses. Table IV shows 33 per cent of respondents considered their business would not have grown as quickly; 33 per cent considered they would have would have been less competitive or successful without the professional image of GTi. There was also a view that GTi has acted as a conduit for information and intelligence (developed less knowledge, 17 per cent). By contrast, only three enterprises (10 per cent) identified that the business incubator had made no significant difference to the development of their business.

Respondents noted a number of aspects of business development and progress that would have been impaired without access to the incubation facility and process, from

Feature	Responses	% of total sample	The measurement of success
1. Professional base with professional business facilities, including meeting room	14	44	
2. Support for business development including advice and guidance from incubator staff	12	37.5	
3. Networking with other GTi businesses/knowledge resource	9	28	
4. Saving money by not having to buy IT infrastructure – hardware and software	9	28	
5. Credible business address/better than home address	5	16	
6. Gives confidence and self esteem as a small business/a positive environment	4	13	
Vibrant, optimistic/nurturing atmosphere – beneficial	4	13	
7. Access to information through GTi staff links, and network	3	10	
Provides a framework where small business looks more professional/bigger/more credible	3	10	
9. Loan equipment (laptops and projector, cameras) for client presentations, development work	2	7	
Flexible use of meeting room – use for business activity	2	7	
Access to UoG expertise, e.g. product development/prototyping	2	7	
Publicity linked to GTi	2	7	

Note: $n = 32$ respondents

Table III.
Identified benefits of business incubators

“slower growth” to “would not exist”/“would not be trading”. One response describes the isolation of the sole trader being dispelled on being part of the GTi community.

Other comments reflect appreciation of the “softer” aspects of the GTi process, describing a nurturing environment, daily rather than appointment-based support, the “good culture”, a place in which to “kick-start” a new business.

Discussion

This study set out to investigate the effectiveness of business incubation practices with reference to the experiences of clients within the GTi project. When contrasted with the extant literature the practices of GTi can be viewed as in line with industry best practice. A number of factors were identified within the literature as key markers of successfully operating business incubators. As the success of the incubation facility is inextricably linked to the experiences and outcomes of the incubating businesses, although the experience of the incubatee is rarely sought in research (Hackett and Dilts, 2004b), this paper provides an overview of the operation of the GTi business incubation project and feedback from the incubating enterprises on their experience of its incubation processes.

Peters *et al.* (2004) pointed to research by Wiggins and Gibson (2003) identifying five things an incubator must do well to succeed. The policies and practices of the GTi project address issues within the remit and structure of the project:

- Clear metrics for success are part of the funding conditions – reporting on agreed targets for new business assisted, and financial reporting. The GTi

Table IV.
Actual effect of business
incubator

Feature	Frequency	%
1. Would not have progressed the business as quickly: slower growth	10	33
2. Would have been less successful/not so professional or as competitive	10	33
3. Would have not found out about some things – would have taken longer (GTi staff, businesses and network)	6	20
4. Less confident	4	13
5. Very little would have changed	3	10
6. Would have spent more money on equipment/would have had to get quite a large loan	3	10
7. Would not have been taken seriously by larger businesses	2	7
8. Would not exist as a business/not trading	2	7
9. Would probably have set up in England	1	3
10. Would be less productive at home/lack of credibility within family resulting in less family support	1	3

Note: $n = 30$ enterprises

project team believes that there are other measures to demonstrate success and this paper is part of the development of an additional structure to measure and report the successes of the project.

- Entrepreneurial leadership is demonstrated through the attention to “customer/incubatee” needs and the use of limited resources in providing a targeted service.
- GTi delivers a range of value added services to incubatees, including private-sector sponsored services (legal, accounting, HR), seminars, access to University expertise, and as shown in the Finding section of this paper, access to the GTi network of registered incubatees and the linkages to the comprehensive external business support and enterprise agency network operating in Wales.
- The selection process operated by GTi is more open than many incubators who select on the basis of most likely to succeed, however the remit of the project is to encourage and support new entrepreneurs, and the hotdesking environment is tailored to accommodate individuals who are at the earliest stages of business development.
- GTi is particularly well placed to source access to financial and human resources, through its private sector sponsors and the link to the South East Wales Innovation Partnership, co-ordinated within the same team as the GTi project. This network brings together enterprise support across all public sector organisations, and GTi businesses benefit from the proximity and access to this large network. Using the parameters offered by Hackett and Dilts (2004a, b), GTi provides detailed and dynamic feedback, encourages clients to create viable control systems for organisational processes and provides a range of professional business resources and services, including assistance with not only business but also marketing planning,

A conceptualisation of the practice of measuring success within such projects in statistical terms or “hard measures”, such as the number of incubating businesses, value of sales, etc. is presented in Figure 1. Within this framework the business incubator appears in the centre. Its key functions are identified therein. Figure 1 proposes that business incubators must demonstrate a positive impact upon incubating enterprises, on their practices in terms of developing their customers base, increasing productivity and turnover. In parallel, the incubator must meet its own “hard” targets, purely objective in nature, as agreed with key stakeholders. However, it is apparent from this research and other literature that business incubators create other outputs, designated “outcomes” (WEFO, 2003) in addition to profit and costs improvements, which we shall classify as “soft measures” (see Figure 1). Soft measures are benefits such as increased business knowledge and skills, more business awareness and increased client networking. These are subjective measures which are more difficult to ascertain and measure but nonetheless exist. This is highly significant as Hackett and Dilts (2004a) have identified five distinct outcomes for incubating businesses, including viewing operating but stagnant businesses as failures – “Zombie Businesses” – rather than successes (i.e. still trading); and early closure of non-viable businesses as success not failure (no great losses incurred). When applying purely “hard” business measures in these cases the picture looks quite different: in an assessment of the influence of business incubation practices on these enterprises no real benefit would be ascertained. However, in reality even these categories of client/incubatees benefit from the exposure to the business incubator using the “soft” metric. These soft measures are particularly relevant in development of personal skills

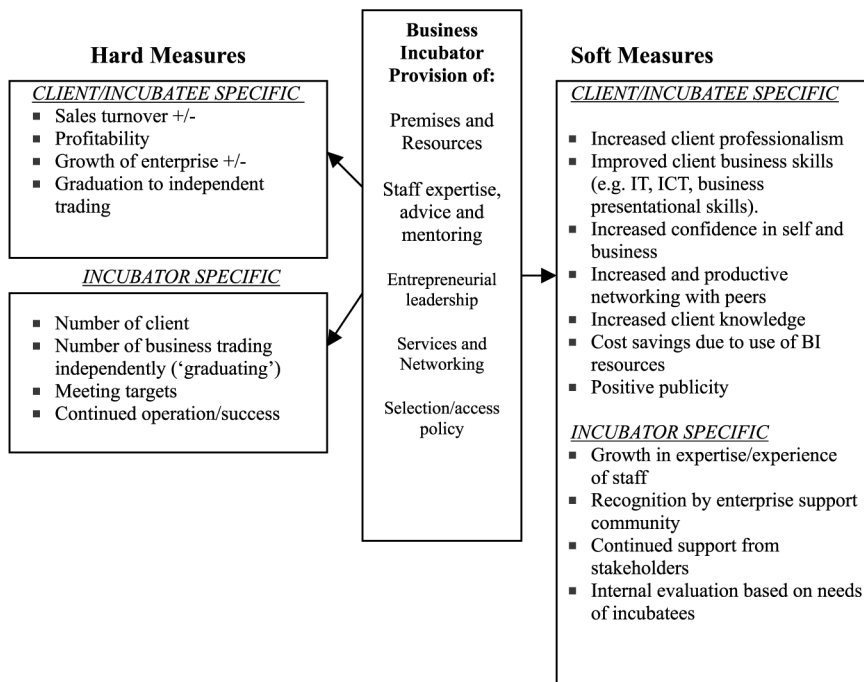


Figure 1.
A conceptual framework identifying the performance measures of business practice within business incubators

and business knowledge which might be applied in the future entrepreneurial activities Hackett and Dilts, 2004a). Thus it could be argued that business incubators provide clear advantages for progressive enterprises and a source of reference, knowledge and enabling skills in a “safe” environment, providing an incentive for immediate or future development of new enterprises. Business incubators must be available for future cohorts of currently nascent entrepreneurs, as well as those who have experience of ventures that may not have progressed and who bring that increased knowledge and awareness to a new venture (Hackett and Dilts, 2004a). By recognising that the success of both the incubator and the incubatee in terms of “soft outcomes” and “distance travelled” - after three years of operation the GTi incubator is an established part of the business support landscape and widely respected for its support of new businesses (Howard, 2005) – a more complete picture of success emerges.

The framework in Figure 1 takes account of criteria published by WEFO (2003), UKBI (2004) and Dewson *et al.* (2000).

In summary, this study will be of interest to business incubation providers and entrepreneurial researchers in identifying valid and achievable success measures and should inform developments in this field. The pressure is on business incubators to provide definitive measures of their successful practice. However, this study indicates a wide diversity of significant positive impacts as a result of involvement with a business incubation practice. Therefore it is important that such capabilities are recognised by both funding agencies and support bodies of business incubation practices. This study should inform both academic research and business incubation providers in the design and measurement of their practices.

Notes

1. United Kingdom Business Incubation (UKBI) is the lead body for business incubation in the UK.
2. Defined by Professor Mark Baird (2005), Pro Vice Chancellor for Third Mission, University of Wales, Bangor, as “Anything that benefits the language, culture, health or economy of Wales”.
3. “TalkSign” is produced by Innovative Displays Ltd, Kent.

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About the authors

Pam Voisey is a GTI Project Manager at the University of Glamorgan, Pontypridd, UK. Pam Voisey is the corresponding author and can be contacted at: pvoisey@glam.ac.uk

Lynne Gornall is Principal Lecturer and GTI Project Director at the University of Glamorgan, Pontypridd, UK.

Paul Jones is a Senior Lecturer at the Business School, University of Glamorgan, Pontypridd, UK.

Brychan Thomas is a Research Fellow at the Business School, University of Glamorgan, Pontypridd, UK.

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