

Impact case study (REF3b)

<p>Institution: 10007857 – Bangor University</p>
<p>Unit of Assessment: UoA 19</p>
<p>Title of case study: SME Research in a European Union Convergence Region</p>
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Since its inception in 2005, Bangor Business School’s Centre for Business Research (CBR) has developed a research agenda focusing on the North West Wales (NWW) EU convergence region, which is dominated by Small-to-Medium sized Enterprises (SMEs) with a distinctively bilingual (Welsh/English) flavour operating in a rural setting. This research has had a significant impact on both local and regional economies by changing the strategies for innovation and growth of individual SME’s. The achieved impact came in the form of tangible growth (5% in one instance), successful bidding & grant acquisition (£400K in one case), improved marketing and customer-management, and enhanced knowledge transfer partnerships, which are reflected in greater employment opportunities as evidenced from the supportive statements of the main users of this research</p>
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>CBRs research strategy was shaped by the findings from earlier works of Professor Dylan Jones-Evans into the importance of entrepreneurship and SME growth in the Welsh convergence regions [a1]. As a new centre, the related research outputs are recent, most of this work was in gestation since the set-up of CBR and the impact on SMEs emerged rapidly and contemporaneously. During the 2008-2013 period, the directorial team (Professor Sally Sambrook, Dr Clair Doloriert, Mr James Goodman, Dr Sara Parry) along with members (Dr Gareth Griffiths, Dr Sonya Hanna, Mr Stephen Jones, Dr Azhdar Karami, Dr Siwan Mitchelmore, Dr. Anahita Baregheh - since 2009 an Assistant Professor at Nipissing University in Canada, Dr Roz Jones – since 2013 a Lecturer at the University of Birmingham and Dr Marv Khammash – since 2012 a University Lecturer at the University of Sussex) focused their efforts on understanding the entrepreneurial, organizational and marketing needs of the SME sector and aiding its growth particularly within the convergence area and in a bilingual-rural context (located within UKL1 of the UK’s NUTS2 statistical regions). With the addition of Professor Konstantinos Nikolopoulos to the School in 2010, CBR developed a forecasting laboratory (www.forlab.eu) that complemented the aforementioned research in areas relating to forecasting, foresight and strategic planning for regional and international companies as well as various non-commercial users.</p> <p>Early research at the CBR focused on business growth and sustainability [a1] as well as organisational entrepreneurship aimed at improving support for local SMEs [a2]. This included theoretical typologies [a2], and evolved to include empirical research into place branding and a model of Strategic Place Brand Management [a3]; the supply/demand for public sector procurement of SMEs; and the needs of SME entrepreneurs with regards to types of business support (such as pre-incubation business units).</p> <p>As the CBR’s expertise developed so too did recognition of the important socio-economic contribution that High-Tech SMEs make to the NW Wales Convergence area. Empirical research (conducted from 2007-2011) focused on examining customer relationships that were developed by High-Tech SMEs with a particular focus on business-to-business, business-to-consumer and inter-firm links [a4]. This work has been important for identifying ways of improving business performance [a5] and marketing capabilities [a4] for such firms as well as for the development of the idiosyncratic strategies catering for the Convergence region. More recently, research sponsored by a Welsh innovation consultancy profiled the degree and types of innovation taking place in the food sector [a6].</p> <p>Research undertaken by the Centre has also sought to develop practical tools that aid SMEs in their management of customer relationships (e.g. our Customer Relationships Attributes Model, CRAM [a4]) as well as initiatives aimed at advancing female businesses (e.g. our Female</p>

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Entrepreneurship Capabilities Framework, **FEC [a5]**). **CRAM** identifies five product-related attributes (price, functionality, bilingual capability, location, and software quality), and seven service-related attributes (communication, understanding of the customer, trust, relationship, service, professionalism, and employee expertise) that aid SMEs in developing customer relationships **[a4]**. This work was developed initially as a tool to aid High-Tech SME software firms and on-going research is developing ways that it can be made applicable to firms from other sectors. The **FEC** framework is a result of contemporary and on-going CBR research into female entrepreneurship **[a5]**. Both CRAM and FEC are research based advisory frameworks that have been used as support for predominantly SME owner/managers of High-Tech, female owned, bilingual, rural-based SMEs operating in NW Wales and linked to the EU convergence area.

3. References to the research (indicative maximum of six references)

(**Bold** denotes current or previous members of academic staff at Bangor)

[a1] Brooksbank, D.J., Clifton, N.C., **Jones-Evans, D.**, Pickernell, D.G., (2001) 'The end of the beginning?: Welsh regional policy and Objective One', *European Planning Studies* 9(2): 255-274. DOI: 10.1080/09654310125540

[a2] **Sambrook, S.**, and **Doloriert (nee Roberts), C.H.** (2005) 'The inter-relationships between corporate entrepreneurship and organisational learning: A review of literature and the development of a conceptual framework', *Journal of Strategic Change*, 14:141-155. Available at: <http://www3.interscience.wiley.com/journal/110544570/abstract?CRETRY=1&SRETRY=0>

[a3] **Hanna, S.**, and **Rowley, J.** (2011) 'Towards a strategic place brand management model', *Journal of Marketing Management*, 27 (5-6): 458-476. DOI: 10.1080/02672571003683797 (submitted to REF2014 ID 19102).

[a4] **Parry, S.**, **Rowley, J.**, **Jones, R.** and **Kupiec-Teahan, B.** (2012) 'Customer-perceived value in B2B relationships: A study of software customers', *Journal of Marketing Management*, 28 (7-8): 887-911. DOI: 10.1080/0267257X.2012.698637

[a5] **Mitchelmore, S.**, and **Rowley, J.** (2013) 'Entrepreneurial competencies of women entrepreneurs pursuing business growth', *Journal of Small Business Enterprise and Development*, 20 (1): 125-142. DOI: 10.1108/14626001311298448

[a6] Baregheh, A., **Rowley J.**, **Sambrook, S.**, and Davies, D. (2012) 'Innovation in food and drink sector SMEs', *Journal of Small Business and Enterprise Development* 19 (2): 300 – 321. DOI: 10.1108/14626001211223919

4. Details of the impact (indicative maximum 750 words)

The ultimate aim of CBR's research is to advance entrepreneurial and innovation skills of SMEs in the NW Wales Convergence region so as to contribute to business growth, innovation and sustainability over the long-term. The impact of CBR's research on SMEs over the 2008-2013 period was facilitated by the involvement of user groups from the outset. Collaboration in the design of the research included important public sector bodies such as local government authorities, the Welsh Government, National Health Service Trusts, the Department of Economy, Science & Transport, and tourism partnerships **[a1]** and **[a3]**; as well as local SME owner/managers (including trade contractors, firms operating in the creative and digital/high tech sectors, as well as engineering and business service companies) [e.g. **a4**]. The resulting impact can be evidenced at the local **[b1]** and **[b2]**, regional and national levels **[b5]**. The findings demonstrate SME commitment to a wide range of factors affecting their innovation orientation, but most important are also a testament to the devotion by owners to encourage new ideas, as well as to cultivate more innovative employees.

Pathways to impact have focused on identifying the actual needs of SMEs in the region. First this

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has taken place via dissemination of CBR research at various workshops and seminars involving SME users. Examples of such include: presentations on “Successful marketing strategies and business growth” (during the European SME Business Week at Wrexham Borough Council, 3rd-7th October 2011); local business events (Marketing Master classes for SMEs during Anglesey Business Week, September 20th 2011); and media work (BBC Radio Cymru (14th December 2011) and Newyddion (15th December 2011; 26th June 2012)). The research has also been presented at conferences ranging from international to local, attended by practitioner and government policy audiences as well as researchers of enterprise and regional development. Examples include the Institute for Small Business and Entrepreneurship (ISBE) Conference (3rd-6th November 2009); and the Research Forum to Understand Business in Knowledge Society (EBRF) Conference (15th-17th September 2010).

The second critical pathway to impact has been through a wide range of SMEs and social enterprises providing the ‘test-bed’ on which CBR research would be applied; including involvement in co-development of research and active participation in a variety of network initiatives. Research on High-Tech SMEs (2007-2011) has impacted upon local SMEs such as Draig Technology Ltd [b1] where research from Sara Parry led to the application of the CRAM model and a better understanding of customer needs in a bilingual context. Similarly research from Rosalind Jones at Semantise (2007-2010) [b2] resulted in a 5% improvement in Semantise’s sales through a better understanding of the importance of entrepreneurial marketing capabilities.

Between 2008-2011, the FEC framework guided the business activities of several local female entrepreneurs in developing self-competencies, with a fine example being Jwls Silver Keepsakes, [b6]. Such frameworks have realised benefits such as increased profitability and improvements in business growth. This activity is in-line with Welsh Government policy to use Convergence funds to increase pre- and post- start-up business support specifically targeted at women to ensure accessible and appropriate services to meet evidenced need.

Another example of CBR’s research work with social enterprises included The Holyhead Opportunities Trust’s partially and Dr. Sonya Hanna on place branding – this involved the development of a model for Strategic Place Brand Management. It had an immediate influence on local town planning strategy and SMEs as the results directly informed the place branding strategy and the process of place brand management of Holyhead (Anglesey) which, in turn, led to the “establishment and delivery of a £400k rebranding and marketing project for Holyhead in the period 2009-13” [b4].

Local firm BIC Innovation has applied the insights and understandings generated from joint research into the study of innovation in the food processing industry [a6] as part of its consultancy services. This has ultimately led to improved competitive advantage capability for BIC Innovation through an enhanced understanding of its substantial client base as well as support for the internationalisation of SMEs based in NW Wales [b5].

Research activities have also fostered on-going relationships with SMEs, leading to impact through successive collaborations. Much of this has been through Knowledge Transfer Partnerships in High-Tech and digital communication SMEs [b1 and b2], including the strategic re-positioning of Sain Records of Caernarfon, North Wales (July 2009 to July 2011, funded at £63,997), an investigation of competition, integrated communications strategy and Customer Relationship Management at Marco Engineering Ltd – an SME in the engineering sector (May to December 2010, £30,400) and a study examining competitive advantage and marketing capabilities in the green-building sector at Black Mountain Insulation of Kinmel Bay (2011-2013, £71,670). Another subsequent project, sponsored by the Attractions of Snowdonia Consortium (Feb 2010, £10,000) was funded to review existing web marketing strategies and scope for implementation of a New Media/Web 2.0 based Social Marketing strategy to aid a consortium of local tourism SMEs to improve their online presence and raise awareness of existing good practice in the tourism sector [b3]. Findings prompted a successful £1m Interreg III bid (transnational Ireland-Wales Structural Funds) to strengthen the region’s digital presence and provide a professional, integrated and bilingual interface, whose look and feel reflects the ethos and ‘sense of place’ of Snowdonia.

In addition to the significant impact on SMEs already outlined, other initiatives such as **LEAD Wales**, **GIFT**, **TESLA**, **Menter Iontach Nua** and **forLab** disseminate research and facilitate an extended influence of the Centre:

- **LEAD Wales** is an £8m European Social Funded programme launched in 2009 and is delivered in partnership with Swansea University. Its Bangor lead manager is the CBR director, Sally Sambrook. The LEAD Wales Annual Report (2012) details that, on average, **LEAD Wales** participants increased their annual turnover by £93,000 per business (an average increase of 26%), and created an average of 2.3 jobs per business (some part time) thus creating over 260 (FTE) new jobs within the Welsh economy [b7 – page 19].
- **Green Innovation and Future Technologies Project (GIFT)** is a European Regional Development Funded partnership through the Ireland Wales Programme (INTERREG 4A) between Bangor (lead partner), Waterford Institute of Technology and University College Dublin. Led by Griffiths along with Sambrook, "GIFT aims to up-skill Welsh and Irish businesses to better take advantage of the opportunities offered by the green economy". To date the project has engaged over 250 businesses.
- **Transnational Ecosystem & Laboratory and Actions (TESLA)** is a €3.8m EU funded project partially supported by the Interreg IVA North West Europe (2012-2015) supporting early stage high growth potential companies. It is a multi-university initiative, spanning several schools at Bangor. CBRs project element represents €707k and is led by Mitchelmore who provides expertise including research work on entrepreneurial finance initiatives, spin-ins and best practice analysis.
- **Menter Iontach Nua** (£329k) is an initiative designed to improve the innovation, creativity and entrepreneurial skills of social enterprises (in collaboration with the Ryan Academy of Dublin City University, Business in the Community BITC Wales and the social enterprise NorDubCo). The project is co-ordinated by Griffiths, Molyneux and Thornton.
- **forLAB**, CBRs forecasting laboratory, has been involved in Knowledge Transfer projects with a range of companies including local start-ups - Alpha Maven Ltd. (Strategic Insight Programme (SIP) - Project CS3009/2013 - £2,250, on "Predictive Models for Financial Markets Using Real Time Micro-blogging data streams"), to major anchor organisations in the region - Siemens Healthcare Diagnostics Products Ltd (Welsh Government sKTP Programme KTP1000811 /2012 - £60,989, on "Improving Operations efficiencies in the Healthcare diagnostics industry" and SIP - Project CS1070 - £2,500, on "Determining the Operational Management improvement process", both in the factory at Llanberis, Gwynedd, Wales). Both organisations changed the way they work as a result of these projects achieving more efficient operations in various aspects of their businesses.

5. Sources to corroborate the impact (indicative maximum of 10 references)

Letters of support confirming CBR's impact are available on request

[b1] Director (1999-2012), Draig Technology Ltd (High Tech SME Director statement)

[b2] Director, Semantise Ltd (High Tech SME Director statement)

[b3] Managing Director, Indigo Jones Slate (SME Director statement - Attractions of Snowdonia project)

[b4] Principal Development Officer, Holyhead Opportunities Trust (Board Secretariat statement)

[b5] Chief Executive, BIC Innovation Bangor (High Tech SME Director statement)

[b6] Company website, Jwls Silver Keepsakes; <http://www.jwls.co.uk/default.html>
 The Director of the company may be contacted to confirm the successful use of the FEC framework

[b7] Research Report on Leading Small Business in Wales: The LEAD Wales Programme 2010-2012 to corroborate impact can be found in:

http://www.leadwales.co.uk/getfile.php?type=site_documents&id=LEAD_Wales_Research_Report.pdf