

Promoting Entrepreneurial Venturing within Science, Engineering and Technology Faculties in Higher Education: the Role of Enterprise Competitions

P. McGowan^a and S. Cooper^b

^aUniversity of Ulster, Northern Ireland Centre for Entrepreneurship (NICENT), Faculty of Business and Management, BT37 0QB Newtownabbey, United Kingdom

^bUniversity of Strathclyde, Hunter Centre for Entrepreneurship, 26 Richmond Street, G 1XH Glasgow, United Kingdom
sarah.cooper@strath.ac.uk

Principal Topic

Northern Ireland is identified in the United Kingdom (UK) GEM 2005 report as a relatively poor performer, from an entrepreneurial viewpoint, coming ninth out of twelve regions. Just 5% of Northern Ireland's population are likely to start a business, with women only a third as likely as men to do so. As a result of decline of its traditional industries, lack of high-value inward investment, skewed growth in public sector spending and the only recent welcome return to peace after thirty years of social unrest, the region reflects an 'entrepreneurially-weak economic environment' (Sweeny 1987). Notwithstanding the important contribution of service-oriented businesses, the SME sector is relatively small and lacks strength in fields such as science, engineering and technology (SET), areas recognised as essential to creating economic dynamism. Despite a sizeable stock of highly-educated people, particularly in technical subjects, there have been few outlets for their talents. Consequently, there are precious few stories of successful, local, venturing activity or examples of role models/champions to shout about to invigorate a much-needed culture for entrepreneurship. This paper investigates the impact of a higher education initiative targeted at developing entrepreneurial capability and encouraging venturing activity in Northern Ireland.

Universities are increasingly recognised by UK policymakers and university managers as having a key role to play in enhancing regional and national entrepreneurial potential, evidenced by government-sponsored initiatives, such as Science Enterprise Challenge (SEC), promoting entrepreneurship within higher education. The Northern Ireland Centre for Entrepreneurship (NICENT), formed in 2000 as part of Northern Ireland's response to the SEC initiative, was tasked with migrating entrepreneurship from its traditional home in Business and Management into the faculties of SET, where the agenda sat less comfortably. Initial key partner institutions included the University of Ulster and Queen's University, Belfast. NICENT's early focus was on building awareness of entrepreneurship amongst SET students through teaching. NICENT is also committed to encouraging student engagement in the practice of venturing, thus, central to its activities is its £25k enterprise competition, managed in collaboration with Investment Belfast.

The competition has seen individual engagement increase, year-on-year, since its launch five years ago. In 2004/05 NICENT facilitated the participation of more than 345 students and staff, a sharp increase from 130 the previous year, representing an increase from 32 to 98 teams. The competition operates over two stages. All teams submit a short business plan for their technology-based opportunity which is evaluated by a team of experts: the top ten teams are selected to compete in the final round. Teams winning through to the final have access to a programme of specialist workshops and are matched with a mentor who provides supports to shape the opportunity and business proposition. Twenty percent of the 50 finalists to date have founded high-technology companies based upon their opportunity.

Methodology/Key Propositions

The proliferation of business plan/enterprise competitions has not been matched by research to assess their impact. This paper reports outcomes of exploratory research to establish the degree to which NICENT's enterprise competition engages the student population with the concept of entrepreneurial venturing, its impact

on participants and its contribution to aiding successful technology transfer. The paper explores business plan/enterprise competitions viewed through the theoretical lenses of venture creation and entrepreneurial learning, before considering the NICENT approach specifically. It considers the variety of ways in which enterprise competitions act as vehicles for entrepreneurial learning, providing participants with opportunities to acquire new and enhance existing skills, as well as develop positive attitudes towards enterprise. It is hypothesised that the highly practical and experiential nature of enterprise competitions provides opportunities for the development of authentic mastery in areas central to building confidence and self-efficacy, important for innovation and venturing. The empirical section of the paper draws on a descriptive analysis of participants in the 2004/5 competition and the findings of interview research conducted amongst competing teams. The interview sample comprises ten teams selected for the final round and ten which were not; half were competitors in 2004/05, the rest competed in earlier years. The sample includes teams which have established a business and others which have not.

Results and Implications

Results of descriptive analysis of all participants in the 2004/05 competition are presented, including a consideration of subject discipline, team size/composition and the nature of the opportunity. Findings from the interview-based research are then discussed, which focus upon individuals' motivations for participation, experience of the process, development of venturing skills, changes in attitudes towards venturing and changes in future work intentions.

Findings presented contribute to a better understanding of the value of enterprise competitions with a university setting, with implications for education and policy. It is recognised that most participants will not engage in entrepreneurial venturing directly after university; it would be a mistake to judge the effectiveness of competitions only on the basis of the number of ventures so formed. Experience gained of venture planning may influence participants towards seeking employment within SMEs and seed longer-term entrepreneurial aspirations. Those who never start their own business are likely to be better-placed to be innovative in organisations owned by others.

The authors recognise limitations of a case approach as a basis for generalisations, however, given the paucity of extant research in the area and unique role that individual universities play in regional economies, the approach is felt to have merit and to be of interest to those involved in seeking innovative ways to further the entrepreneurship agenda within higher education.

Contact

Paoric McGowan. University of Ulster, Northern Ireland Centre for Entrepreneurship (NICENT), Faculty of Business and Management, BT37 0QB Newtownabbey, United Kingdom.
(T) +44 (0) 289036 8864, (F) +44 (0) 2890366015, Email: p.mcgowan@ulster.ac.uk