BUSINESS PLAN COMPETITIONS IN AN ACADEMIC SETTING - A CONCEPT OVERVIEW AND ITS CONNECTION TO THE VENTURE CREATION PROCESS

Karl Maack[1], Tobias Thornblad, Adil Abouzeedan and Thomas Hedner

University of Gothenburg, Sweden

Abstract: The concept of business plan competitions (BPC) to promote entrepreneurship and venture creation originates from the early 1980's. Generally, the BPC concept was developed in innovative and entrepreneurial academic cluster environments in the US, from where it spread globally, primarily to Canada, Europe and Australia. Generally, the development of BPCs has been seen in expanding entrepreneurial and venture creation cluster initiatives in cooperation with regional universities. From the current global BPC overview, we demonstrate that BPCs differ in terms of focus, which may be towards high-tech, biotech, health, IT or socially oriented focus. Some competitions are focused only on ventures with a product development while other BPCs have a focus on service-oriented businesses. There is also a difference in reach, where some BPCs have a global outlook, while others have a local focus. The BPCs analyzed also differ in terms of involvement, where some competitions have an academic connection through a major university or business school and they are often non-profit driven by society and/or students. The pedagogic approach differs where some BPCs only have a focus on the written plan where others have mentoring, coaching, and training in presenting business ideas orally as a part of their concept. In the present paper, we present an overview of the major BPCs globally, with examples from each continent, that is Africa, Asia, Australia, Europe, North America and South America. We have focused on BPCs with an academic curriculum and mapped the most visible BPCs in the respective continents. An additional focus was to present a conceptual overview of the BPC concept

[1]Innovation and Entrepreneurship, Department of Medicine, Sahlgrenska Academy, Medicinaregatan 8B, PO Box 417, University of Gothenburg, SE 405 30 Göteborg, Sweden Email: karl.maack@gu.se

and venture creation initiatives and small business start-up. The global spread and success of the BPC phenomenon can be described and understood in terms of knowledge diffusion theory and business cluster ecosystems connected to venture creation. The concept also builds on a competitive element which attracts diverse innovative and entrepreneurial talents to create new combinations of business solutions in diverse fields if business development.

Keywords: *Business Plan Competitions, Global Review, Entrepreneurship, Innovation, Regional Development, and Empowerment.*

INTRODUCTION

In the market economy business ecosystem, innovation and entrepreneurship is in the center of business and job creation, and it is altering our society domestically and globally (Kozmetsky 1993). New venture creation serves as an instrument for job growth, and recently, Business Plan Competitions have emerged as interesting instruments to accelerate the development of high tech ventures from the academic environments.

Since the origin of business plan competitions (BPCs) in USA in the 1980ies, regional Universities have implemented this element in their innovation and entrepreneurship ecosystems in order to foster real business start-up tacit/narrative learning, networking, mentoring, coaching, and partner collaboration (Russel et al 2008). Many academic entrepreneurship programs also use BPCs as a showcase to the business ideas of their students (Russel et al 2008) in order to attract talented students and staff. The BPCs also provide an interesting tool for wealth creation by exposing the potential business ventures to start-up financiers such as business angels and venture capitalists (Russel et al 2008), since they also serve as a venture creation cluster platform to benchmark business ideas and share best practices. With the current global proliferation of BPCs in academic settings, there will be a demand for greater accountability and return of investment from a variety of stakeholders. BPCsdraws on the concept that a competitive as well as collaborative element can stimulate creativity and prepare students and researchers for the real world of entrepreneurship (Russel et al 2008).In essence, the competitive setting increases performance (Porter 1990), while the collaborative team element increases theoretical and tacit learning (Nonaka& Takeuchi 1995).In terms of the institutional actors

involved, business plan competitions may be seen as a form of organizational learning (Stopford 2003) in response to market signals, triggered by the global environment, technological advances, and competition. In terms of the individual business plan contestants, our understanding is that the collaborative and competitive element provided by the business plan platforms may be seen as powerful learning incentives.

While venture start-up and early business growth have been a focus of much research, relatively little has yet been published regarding the concept development and outcomes of academic BPCs. In the present paper, we describe the emergence and rapid growth of University affiliated BPC concepts around the world. We also outline and discuss the role of the BPC in the academic venture creation ecosystem, and discuss some key success factors for implementing a BPC as a competitive and value creating tool into a University cluster.

THEORETICAL CONSIDERATIONS

Diffusion theory

The theory of the diffusion of innovation is a central concept in the understandingof howentrepreneurial venture creation communities develop and mature, and how innovation concepts are spread among members in a community. Diffusion theory describes how innovations are communicated and propagated by different actors and channels over time. In this respect, aBPC represents a social ecosystem within a business community that is concerned with entrepreneurship and academic technology transfer as a means of venture creation and start-up of a business.

Diffusion of theoretical knowledge and tacit capabilitiescan provide an understandingof how the business ideas and technologies are developed, commercializedandhow companies are created. The diffusion theory is alsohelpful in understanding the role and importance of the local and regional actors who champion the change process,as the initial communities are transformed into venture creation centers. Also, this theory helps us to understand and model why some communities are able to createsuccessful business ecosystems while others are not.

Initially, the diffusion theory can be traced to the sociologist

Gabriel Tarde (1903), who a century ago studied the process of how new technologies are introduced into communities and how such novel technologies change the economic foundation of societies. Agents of change are the specific actors who initially are responsible for the diffusion of innovations from the initial discovery to the marketplace. In the original theory, agriculture was investigatedas a system that was transformed by university laboratories. Some agriculture research findings could be transformed into business opportunities, which subsequentlyaltered and developedthe prevailing business ecosystems. Thus, the process of technology transfer and business creation is central to diffusion theory. The theory also became useful for research on technology clusters, rate of adoption of innovation, and the importance of change agents and opinion leaders in such systems. Taken together, these elements reappear in analogoussettings in providing an explanation of howbusiness ecosystems emerge in different regions. Thus, diffusion theory is a centraltheoryin respect to how new ideas and technology innovations are integrated into business society.

Business clusters and ecosystems.

The business ecosystem theory deals with how and why firms cluster to create ecosystems. This process allows firms to compete better and therefore certain regions have become the home to specific types of business clusters. This allows business communities to enhance the development of new firms to join the clusters. In business clusters and ecosystems, the unit of analysis is the firm while in regional development studies; the unit of analysis is the region or the city. Business cluster theory originated with Alfred Marshall (1920), who noted that specific industries tend to cluster in distinct geographic areas, and that individual cities or regions tend to specialize in the production of related kinds of goods and associated services. Marshall proposed that knowledge spilloverwas a primary reason for this clustering since that created a setting where vital industrial and trade informationwas not really proprietary but rather information accessible to anyone in the cluster. The very process of clustering also creates important marketplaces for specialized knowledge and skills. Joseph Schumpeter also contributed to the cluster theory when

he argued that major innovations have had a tendency to historically appear irregularly in clusters, groups or swarms. Schumpeter's workon clusters was related to major innovative breakthroughs in specific sectors, a process that gradually attracts new firms into the specific sector to take advantage of profitability of the specific innovation (Schumpeter 1934). Later work introduced the idea of the cluster as a way to explain successful competitive strategies (Porter 1990; Moore 1996) based on the notion that there is a relationship between geographic proximity and the element of competition, and also that a market is often centered around an idea which by itself drives innovation. Furthermore, entrepreneurial companies have access to innovative suppliers, which allows for a successful competition with larger companies, and the clustering of companies attracts investments from funds and venture capitalists. Other important perspectives are that clustering encourages collaboration and diffusion of best practices between firms and also that clusters usually function as an attractor for talented people.

The concept of the region or community was introduced later into the cluster paradigm. George Kozmetsky (1993) pointed out the importance of the interaction between the firm and community support in the cluster model. This was specifically important in the creation of new firms in dynamic academic clusters in the process that connects Universities, government and business (Kozmetsky 1993).The understanding that the University is a major partner in dynamic clusters and regional economic development,emerged as a concept in the 1990ies (see Etzkowitz 1994). According to this concept, academia and government collectively transferred of knowledge from University laboratories and environments to companies for commercial exploitation. Thus, in addition to the traditional university function of supplying firms with graduates, there has beena development of academic venture ecosystems, whichare of major importance for start-up and growth of entrepreneurial firms within the academic cluster (Gibbons 2000). Some of the requirements for successful start-ups, such as business ideas, talented people, and sources of capital etcetera are present in that environment of technical, educational and social infrastructure. Later, research demonstrated how academia interacted with a number of cluster organizations to support

the creation of Silicon Valley. Also, academic cluster formations played important roles in connecting entrepreneurs to venture capital, in the creation of business start-up and growth, as well as theemergence ofan increasing number of business deals in the new economy. Further, the academic clusters were important in the interaction with inventors, the building networks, and attractionof foreign entrepreneurs to the cluster arena.

These revelations created an explosion of research and action around the world to systematically copy the success of Silicon Valley and similar cluster concepts. During recent years, the concept of technology start-up and business clusters have been introduced in several regions around the world, including Cambridge, England; Hsinchu-Taipei, Taiwan; Singapore; Bangalore, India; Tel Aviv, Israel; Göteborg, Sweden; and Helsinki, Finland. Additional areas with ongoing activities include additional Asian nations such as Vietnam, China and Japan (Kuchiki and Tsuji 2005).

BPCsas mechanisms for venture creation.

The business plan serves many purposes including clarifying strategy and goals that are important to the internal and external stakeholders, particularly financial stakeholders (Barrow et al. 2005; Mason & Stark 2004). Researchers have criticized business planning for taking the founders focus away from more important tasks and that the founders should rely more on intuition than engaging in business planning (Allison et al. 2000, Bird 1988). In contrast to this criticism lies the principle of organization theory that argues that planning before taking action improves the quality of most human action (Smith et al. 1990). Delmar and Shane (2003) have challenged the negative view of business planning, arguing that business planning is an important precursor to action in new ventures. In this setting, the business plan is a decision-making tool that includes a number of aspects of the business planning process such as; set-up, products and services offered, business model, competition, marketing, finance, operations, how set goals shall be reached, sales, human resources, organization, and legal intellectual property plans as well as other relevant plans, when required. Goal strategies should be set to attract external stakeholders such as investors, customers and society, as well as

relevant internal stakeholders based on a variety of critical success factors. Thus, business plans may be assessed in terms of financial as well as non-financial measures (Abouzeedan et al 2009).

The preparation of a business plan requires a wide range of knowledge from a number of different disciplines; business, technology, research, finance, human resource management, intellectual property management, supply chain management, operations management, marketing, and sales, among others. Alongside the general business plan, a number of detailed sub-plans are usually prepared for the most relevant business aspects of the new venture. In order to understand and support venture creation, managers of business ventures benefit from theoretical and tacit training in business planning on an educational level (Oakes et al. 1998). Such training is today increasingly implemented in academic curricula at most major universities as a part of entrepreneurship courses (Russel et al 2008).

In The Wealth of Nations (1776) Adam Smith described the economic terms of competition and in later microeconomics theory, there hasbeen a distinction betweenperfect competitionandim perfect competition. Microeconomics theory concludes that no economic system of resource allocation is more efficient than a system with perfect competition. In economic theory, perfect competition exists in markets where no participants are large enough to have the market power to set the price of a homogeneous product. This may also be applicable to higher education as well as business start-up creation out of the academic environment. Competition, according to this theory, may also be applicable to academic BPCs where new business ideas compete against each other in a setting of substitute or indirect competition, i.e.the academic setting and platforms, where business ideas and new business platforms are actually close substitutes for one another. In addition, in most BPCs, aspiring ideas and start-up companies also compete forfinancingand human capital on the markets in order to generate the necessary resources for their operations. Also in this respect, the increasing number of global BPCs is competing for the ideas and start-ups from the most dynamic entrepreneurs.

Previously, start-up business and economic competition in

most academic settings was limited or restricted, due to the passive roles of the academia, often leading to a situation were less innovative and less competitive start-up business ideaswith lower potential were launched from the academic clusters. Today, the situation has changed, and competition between academic business creation ecosystems is dynamic. This is due to the realization by policymakers that there isgrowing evidence that well organized BPCs have significant impact on regional economies (Maack et al 2011). Universities are therefore todayacting to provide the best possible business environment for aspiring academic entrepreneurs. This is evident by the rapidly growing number of academic business plan contests as well as policies undertaken by a number of major Universities to facilitate high-tech innovation and venture creation in the academic ecosystem.

METHODOLOGY

In the process of mapping of the major BPCs worldwide we have utilized the Narrative-Textual Case Study (NTCS) method (Abouzeedan et al 2007). The NTCS model is derived from classical case study methodology but takes advantage of the use of modern ICT tools for case identification and data gathering.

The mapping of BPCs worldwide was performed with parallel searches utilizing Google search and Google Scholar on the Internet. The parallel searches were; "business plan competition"; "business plan contest"; "venture competition"; "venture contest", and set to include all words. In addition we performed searches on each of these four topics with the addition of a localization term, where the following terms were included; Africa; Asia; Australia; Canada; China; Europe; India; Japan; Latin America; North America; South America; USA. In the selection of BPC for the benchmark comparison, we choose the hits that included information on a specific BPC or that it provided information about a specific BPC, as well as indicated a connection to academia. We also searched the websites of the listed 10 major universities from each continent for any connection to a BPC.

The information gathered provided a basis for further characterization and segmentation of the BPCs based on business sector focus (High-tech, Biotech, Health, IT or socially oriented),

geographical origin, number of participants, pedagogic model (theory/tacit), learning focus, outcome focus, supporting structures, university links, business/society links, board of managers include society and business representation, years since established, coaching/mentoring models, ROI focus (individual/society), peer review quality control process in place, as well as regional development perspective.

Further study includes the design elements; access to teaching staff in house; access to external teachers, coaches and mentors; networking and team building capabilities; access to business incubator(s); access to business angels and venture capital; intellectual property policy strategy and training.For the education we base our benchmark on educational quality on the 15 elements discussed in our former work (see Maack et al. 2010). We have also included stakeholder perspectives through the elements; student output; employability; ROI for society; workload of the teachers and administrators.

RESULTS AND CASE REPORTS

Due to the early success of the cluster development, the concept of Business Plan Competitions has proliferating rapidly. In the past decade, establishment of BPCs have increased at an annual rate of 21% (Ross & Byrd 2011). The two models that have been most successful competition "benchmarks" are the MIT 50K Entrepreneurship Competition and Moot Corp University of Texas at Austin (Russel 2008). Interestingly, the concept developed by these two initial academic BPCs has been transferred to University clusters in other parts of the world (see figure 1). The concept also builds on a competitive element, which attracts diverse innovative and entrepreneurial talents to create new combinations of business solutions in diverse fields of business development. The vast majority of competitions are located in the USA from where it has spread primarily to academic centers in Europe, Australia and Japan. During the last years, the BPC concept has caught on interest in China, India and South Africaand most of these BPCs are less than five years old.

In our benchmarking study we aimed to identify 2-4 major BPCs in each global region (see figure 2). At some academic institutions, we found that the

BPC concept was integrated in the innovation and entrepreneurship educational curricula, and in many cases participation in a business plan competition was a requirement of an entrepreneurship Masters or major degree. In other Universities, BPCs are considered extra-curricular activities conducted outside the domain of the traditional academic programs. Academic programs have increasingly incorporated the BPC model into their course curricula and used the venture creation concept in their pedagogic model (Hedner et al 2010). Also, some academic centers require students in business planning courses to attend or analyze aspects of business plans from competitions. From our chosen benchmark BPCs, from each continent listed in table 1, the following 5 case reports will give some further description of the most established BPCs.

Venture Labs Investment Competition (formerly Moot Corp)

Established 1984, Venture Labs Investment Competition (formerly Moot Corp) started at The University of Texas at Austin by MBA students in 1984 as the Moot Corp (envisioned from Moot Court), and it is one of the oldest new venture competitions in the world. The competition provides graduate students with a forum to present their business plans to panels of investors and raise venture capital, which simulates the real-world process of starting and growing new ventures. In 1989, the Moot Corp competition held its first US national competition including MBA teams from Harvard, Wharton, Carnegie Mellon, Michigan and Purdue. In 1990, the competition became an international event with contributions from London Business School (UK), Lyon Graduate School of Business (France), and Bond University (Australia). Currently the competition has been extended to the University of Georgia, the University of Indiana, San Diego State University, the University of Oregon, and the University of Nebraska-Lincoln as well as the Chinese University of Hong Kong, and a number of other Universities around the globe (Figure 2). The prestige of the Moot Corp competition has been globally recognized and the competition has been held as the “Mother of all Business Plan Competitions” and the “Superbowl of Business Plan Competitions”.

MIT $100K Entrepreneurship Competition

Established 1990, the MIT $100K Entrepreneurship Competition is also recognized as one of the largest and most famous business plan competitions in the world. The competition is entirely student-managed, and students from all programs and levels at MIT organize and enter the competition. The Competition is overseen by the MIT School of Engineering and is located in the MIT Entrepreneurship Center at the MIT Sloan School of Management.The competition was started in 1990 as the "$10K competition", and it continued to grow throughout the 1990s. In 2006, the $50K added an additional competition focused on business plans for low-income communities to complement the traditional business venture competition. There are different segments of the main MIT $100K contest; MIT $100K Elevator Pitch Contest; MIT $100K Executive Summary Contest as well as the MIT $100K Business Plan Contest.

Stanford Entrepreneur's Challenge (E-Challenge)

Established 1995, the Stanford Entrepreneurship Challenge (E-Challenge) is an annual business plan competition conducted by the Business Association of Stanford Engineering Students (BASES) with the purpose of developing the next generation of entrepreneurs. It takes place during the winter and spring quarters, and includes several rounds of plan submissions, pitching, and modifications. The competition is built around a support structure that helps the participants to learn about venture formation and to explore their entrepreneurial ambitions. There is also a focus on sharing and developingstudents skills, produce business ideas, and start companies. E-Challenge provides participants with $50,000 in total final round prizes, as well as the resources and training to launch their startups, in the setting of a range of educational methods, such as mixers, workshops, mentorship, and individual feedback from renowned judges.

Venture Cup

Established 1998, Venture Cup is a Nordic BPC with a main focus to provide support to entrepreneurs with potential business ideas. Venture Cup is focusing on start up activities with the addition of coaching and mentoring

support in the setting of a business plan competition. The business plan competition was initiated in collaboration between McKinsey & Company and universities in Sweden, and later in 2000 a Øresund-based competition was established in Denmark and Southern Sweden. From its start in 1998, Venture Cup has grown to be one of the largest business plan competition in the world. It exists as non-profit organizations in Denmark, Finland, Norway and Sweden. Participation is open to the wider Nordic entrepreneurial community, but teams predominantly include University students and/or academic teachers. Over the course of the competition, contestants develop their ideas into investment-ready business plans. The students formulate their business idea followed by a more complete business plan. At each stage prizes are awarded. The competition is mainly student managed and it is also integrated with an academic course in "Business planning for growth companies" given by the teaching Faculties of Engineering, Medicine and/or Medicine at the various University locations in the Nordic countries. The purpose of the competition is to promote entrepreneurship within Scandinavian universities and the society as a whole as well as to generate high-growth start-up companies. More than a thousand participants compete each year across Scandinavia every year with more than $500K given away as prizes to the best entries.

The UC Berkeley Business Plan Competition

Established 1999, the UC Berkeley Business Plan Competition (BPlan) is a student-run program for aspiring entrepreneurs: The BPlan Competition is a forum providing entrepreneurs with essential resources, including education, networking, team creation, mentorship and new venture financing, to help turn innovative ideas into real businesses. The competition is open to ideas in biotech, software, clean-tech, consumer goods, computing services, mobile applications, financial services, e-commerce or any other industry. The Competition includes some 100 entries yearly and the group of contenders and awarded over $50K in prize money annually.

DISCUSSION

The idea of BPCs builds on the concept that the competitive element itself has a positive effect on idea generation and development

of start-up companies. For innovation and entrepreneurship to succeed in an academic environment, there are more requirements than the presence of motivated entrepreneurs. More complete ecosystems are needed to ensure the survival and growth of new firms with a goal to spread job creation and wealth to the regional social and economic environment in order to fosterregional economic growth and development. If the new businesses created by the BPC ecosystem are based on high-value products and services that require knowledge and venture talent, the BPC concept is more likely to be accepted as an important and natural ingredient of the Universityecosystem. However, as more academic entrepreneurship programs integrate competitions into curricular and extra-curricular settings, there is a need to critically assess the goals, the set-up and operations, the outcomes for the students, the teachers as well as the society, from the BPC concept. Since a large number of regional competitions are in their "introductory" or "growth" stage, they may benefit from the development of assessment methods and quality measures.

The large number of BPCs that are operating today follow different models ranging from; campus-only access toregional university and to open global scope; specialized tracks for entries, such as the arts, life sciences or social entries; as well as varying involvement from the business society and sponsors. The diversity of goals and contexts, stages of development and success are important reasons for developing best practice benchmarks for academically linked BPCs. Like academic programs, BPCs serve diverse stakeholder interests and objectives. Several major competitions, such as Venture Labs BPC, MIT$100K and Venture Cup, are today well established BPCs. In order to develop the BPC concept, there is a need to move beyond a focus on short-term success factorsto encompass more extrinsic and long-range results for the major stakeholders.We also need to understand how academic start-ups may best be integratedover time into the wider regional business creation ecosystem. An increasing number academic innovation and entrepreneurship programs have over the years recognized the importance of increasing the efforts to consolidate the entrepreneurial ecosystem and to actively participate in the regional business life.

Several University clusters in USA and Europe started

activities to promote academic entrepreneurship more than 25 years ago and an increasing number of Universities in China and India are following this trend today. Structured academic programs, built on a venture creation philosophy are being established as well as settings for academic start-up and growth incubators. Today such developments are seen as natural steps in the sequence of enterprise development, and the success of such incentives have become evident over the last decades in USA as well as Europe. However, it was also recognized that the development of dynamic clusters also needed other elements, to capture the full potential of innovation and technology start-ups in the University environment. There was a need to capture the potential opportunities in a wider context by a dynamic integration of the academic start-up ventures into the regional business society. This challenge was met by technology parks, which emerged as a preferred model in the construction of an ecosystem. Integrating a BPC into the regional entrepreneurial ecosystem is more than facilitating the physical spaces such as incubators where entrepreneurs interact. Although physical space remains an important issue, the integrated ecosystem needs to include a range of components and activities. Importantly, there is a need to align institutional objectives; provide access to university capabilities; and to foster a market driven orientation for academic research. An active participation from the business community is needed through business angels and venture capitalistsas well as the active participation of municipal, state and federal government institutions to create the necessary societal framework needed to assignadequate resources and networking possibilities. Aspiring entrepreneurs need be given access to resources in the entrepreneurial ecosystem including a variety of resources in the dominating academic centers. Provision of such resources, have helped leading US and European academic venture creation clusters to develop a range of functions and capabilities needed to promote and foster an entrepreneurial orientation on their campuses (see table 2).

In essence, business plan competition programs represent an integrated part of the academic venture creation ecosystem, and also an experiment in learning entrepreneurship by involvement, in an entrepreneurial high-tech or

service start-up enterprise. In the BPC settingstudents are exposed to the real life tacit aspects of entrepreneurial practice and real business environments. The BPC programs have generally beendeveloped as a long-term investment in cultivating an entrepreneurial mindset of future entrepreneurs and business leaders. In the BPC programs, some students start their own ventures during their academic studies, but a much larger groupis given an entrepreneurial mindset that would orient their career towards venture creation embedded in the high-tech academic environment. Most BPCs and associated academic courses also providestudentswith valuable lifelong social networks within the regionalventure creation communities. This means that they are be better equipped for starting and expanding high-tech companies with global aspirations.

In respect to organizational aspects, to successfully implement a creative academic venture creation ecosystem, the top University leadership and management must convincingly embrace and actively support the development of innovation and entrepreneurship theoretic and tacit learning programs. Also, any university that advocates entrepreneurship as a core activity should also have a clear vision of its own role and responsibility in the economic development of its region.

Today, an increasing number of Universities around the world are shifting their traditional focus from being primary an educational provider and scientific knowledge creator to a more dynamic and complex innovative and entrepreneurial university model that also includes the commercialization of academic knowledge and research in order to actively contribute to the creation of start-up ventures in the local and regional economy (Etzkowitz et al. 2000; Etzkowitz 2003). The business plan completion concept can be seen as an effective means to implement this additional mission. Due to the ongoing focus shift, universities arebecoming an increasingly important force in the national innovation system as they recognize the need to operate within a triple-helix nexus that involves closer interactions with government and private industry. What distinguishes successful university ecosystems from unsuccessful ones is that their non-classroom educational activities explicitly attempt to reach beyond the campus. By

doing so, entrepreneurial universities promote and catalyze the development of the regional external venture ecosystem, and turns the university into an attractor for entrepreneurial networking activities linking the academic community with the external venture ecosystem.

The BPC concept also emphasize that entrepreneurship plays a significant role in the content of university-wide education at a larger scale. Importantly, universities need not only take on new functions, but the core function of education also needs to be reoriented. Many argue that there is a need for universities to play a more active role in fostering an entrepreneurial mindset among students. This is particularly important in the context of several European and Asian regions, where the academically educated population has demonstrated a relatively low entrepreneurial propensity (Wong et al. 2007; Acs 2010). The BPC concept may be one important and effective means to accomplish such goals. In an increasingly competitive global economy, stable job opportunities and steady corporate careers are no longer guaranteed, and therefore the university sector need to take on new tasks such as to re-orientate student career expectations of the job market and to prepare them for a more competitive and entrepreneurial world.

CONCLUSIONS

Starting in USA some 25 years back, the BPC concept has been adoptedas a key element of the entrepreneurial University model in order to contribute more effectively to the commercialization of university research and technology know-how. In our analysis, we find that the most successful academic BPC concepts appear to be firmly supported and embedded in the University environment, but also open to a wide range of outside contestants. Examples of this are the Venture Labs Entrepreneurship Competition, MIT $100 Entrepreneurship Competition, and Venture Cup concepts.

Also, when organizing the University entrepreneurship activities in a coherent ecosystem to support a business plan concept, there is a need to focus on new venture creation and actively include outside educational expertise and competence as an important first step towards creating critical mass and validity for the

emerging academic entrepreneurship strategy. In doing so, a necessary requirement for success is that the university sees beyond its walls to stimulate regional entrepreneurship education and activity in a wider sense. Such an extended vision will strengthenand position the University as an actor in the regional venture creation ecosystem.

A number of issues have to be addressed, such as innovation and entrepreneurship curricula, anew focus on the task of venture creation, creation of structures for seed funding as well as later stage funding, and active engagements to support the development of coaching, mentoring and development of a dynamic social, businessand alumni networks.

To establish a business plan competition as an educational concept, there is a need to find a dynamic sponsor (a university or community leader who is willing and able to proclaim an entrepreneurial vision) and an entrepreneurial champion within the university community (usually a member of the administration or faculty). These entrepreneurial leaders will often push to create a pilot program; an initial course, a research initiative or an outreach program; in order to gain visibility, attract additional talent and acquire resources, for example from donors, sponsors in the business community and government agencies.

Our survey shows that that the catalyst for starting BPCs is market pull rather than academic push. For example students acted to create the MIT and Moot Corp competitions and outside actors were instrumental in creating the venture Cup concept. Therefore for presumptive Universities that are interested in launching a BPC concept, it is advisable to seek the aid of Alumni of the university who have been successful entrepreneurs. Such external actors may successfully lobby the university to establish entrepreneurship and BPC initiatives. Alumni organizations may be willing toprovide financial support and students are important to provide essential input anddrive to get the new BPC program started. Initial success in a pilot project often leads to the start-up of additional initiatives.Our analysis demonstrates that the BPC ecosystem grows organically around inspirational leaders until it reaches a critical mass. At that point, it is likely to become recognized and accepted as a part of the university's formal

innovation and entrepreneurship strategy.

Regardless of how the academic business plan competitions are initiated, typically internal and external forces need to act in concert to encourage and actively suppress resistance to the development of BPCs and other entrepreneurial academic venture creation activities. If the work to implement a BPC in the University ecosystem is successful, it often results in robust curricular and co-curricular programsthat results in the development of entrepreneurial talent, dynamic research initiatives that often create a flow of intellectual property, and a comprehensive set of outreach programs that create a resource-rich environment in which academic entrepreneurship can flourish.

BIOGRAPHY

Karl Maack graduated a technology master in Innovation and entrepreneurship at Chalmers University of technology (Sweden) and founded the medical Device company SenCere Medical AB. In the last 2 years Karl has been managing this venture as well as working with establishing the department of Innovation and entrepreneurship at the medical faculty at Gothenburg University. Karl is now employed at the university working with development of pedagogic approaches och distance education. As a PhD student the research focus is on business plan competitions and their outcomes as well as e-learning and International entrepreneurship.

Tobias Thornblad is the CEO at Dermafol a Gothenburg based company that develops treatments for oral and skin diseases. He is also co-founder of Monocl, a Life Science Intelligence company guiding investors and business leaders to make informed investment decisions. Tobias has previously worked as consultant at CIP Professional Services AB and at the Center for Intellectual Property (CIP), where he specialized on the biotech field. Recent work at CIP includes a peer-reviewed paper Tobias co-wrote on the role of intellectual property platforms within Life Science. Prior to his position at CIP Professional Services, he held an Intellectual Capital Management position at Dow AgroSciences (a fully-owned subsidiary of the Dow Chemical Company), Indianapolis, USA. He has two master degrees in Intellectual Capital Management

and Bioengineering, both from Swedish Chalmers University of Technology, in addition to a diploma in Biotechnology and Business from Queensland University of Technology, Australia.

Adli Abouzeedan holds a Master degree in Chemical Engineering, Chalmers University of Technology, Sweden. Abouzeedan has published more than forty journal papers, book reviews and chapters in books in the field of innovation and entrepreneurship. His works appear in reputed journals such as Global Business Review; Journal of Enterprising Culture; Journal of International Entrepreneurship; and World Review of Entrepreneurship, Management and Sustainable Development. He is the Editor-in-Chief of Annals of Innovation & Entrepreneurship, an open access journal based at the Innovation and Entrepreneurship unit at Sahlgrenska Academy, University of Gothenburg, Sweden. Abouzeedan is currently finishing a PhD degree at Linköping University, Sweden, in innovation and entrepreneurship. Adli Abouzeedan has established and operated couple of companies in the fields of management consultancy and trading. Abouzeedan's research interest covers a number of areas including SME performance, managing innovation in high technology smaller firms, internetisation management, innovation capital, small firm internationalization, entrepreneurial start ups, online education, and sustainable development.

Professor Thomas Hedner holds MD, PhD and MBA exams from the University of Gothenburg in Sweden. He is currently responsible for Innovation and Entrepreneurship at Sahlgrenska Academy. He has published extensively in medicine, especially in cardiovascular medicine and new drug development. In economics, his research interest extend to open innovation, entrepreneurship orientation and decision analysis in complex project management.

REFERENCES

Abouzeedan, A. and Leijon, S. (2007) 'Critical Review of the Usage of NarrativeTextual Case Studies in Social Sciences and the Connect to Traditional Research Methods', *Uddevalla Symposium Tenth Anniversary 2007: Institutions for Knowledge Flows - Building Innovative Capabilities*

for Regions, ISBN: 978-91-633-1578-7.

Abouzeedan, A., Bustler, M. and Hedner, T. (2009) 'Managing Innovation in a Globalized Economy: Defining the Open Capital', *Conference Proceedings: World Association for Sustainable Development 2009* (WASD), page 287.

Acs, Z. J. (2010) 'Entrepreneurship and economic development: the valley of backwardness', *Annals of Innovation & Entrepreneurship*, volume 1, Issue 1.

Allinson, C. W., Chell, E. and Hayes, J. (2000) 'Intuition and entrepreneurial behaviour', *European Journal of Work and Organizational Psychology*, volume 9, Issue 1, pages 31-43.

Barrow, C., Barrow, P. and Brown, R. (2005) 'The business plan workbook', *4th edn. London: Kogan Page Ltd*, ISBN: 9780749452315.

Bird, B. (1998) 'Implementing entrepreneurial ideas: The case for intention', *The Academy of Management Review*, volume 13, issue 3, pages 442-453, ISSN: 0363-7425.

Delmar, F. and Shane, S. (2003) 'Does business planning facilitate the development of new ventures?',*Strategic Management Journal*, volume 24, Issue 12, pages 1165-1185, ISSN: 1097-0266.

Etzkowitz, H. (1994) 'Academic-industry relations: a sociological paradigm for economic development', *Leydesdorff, L., Van den Besselaar, P. (Eds.), Evolutionary economics and chaos theory: new directions in technology studies. London: Pinter Publishers*, pages: 139-151.

Etzkowitz, H., Webster, A., Gebhardt, C., Terra B. R. C. (2000) 'The future of the university and the university of the future: Evolution of ivory tower to entrepreneurial paradigm',*Research Policy* 29 (2): 313-330, ISSN: 0048-7333.

Etzkowitz, H. (2003) 'Innovation in innovation: the Triple Helix of university-industry-government relations',*Social Science Information* 42(3): 293 -337.

Gibbons, M. (2000) 'Changing Patterns of University

- Industry Relations', *Minerva*, volume 38, issue 3,pages 352-361.

Hedner, T., Edgar, B., Maack, K. and Abouzeedan, A. (2010) 'Innovation and Entrepreneurship curricula at Swedish Universities - theoretical, tacit and narrative learning aspects', *Working paper presented at FINPIN, Innovation and Entrepreneurship in Universities conference, 25-27 April, Joensuu, Finland.*

Kozmetsky, G. (1993) 'The growth and internationalization of creative and innovative management', In: *Generating Creativity and Innovation in large Bureaucracies, Quorum Books.*

Kuchiki, A. (2005) 'Theory of a flowchart approach to industrial cluster policy', *Kuchiki, A. and M. Tsuji, eds., Flowchart Approach to Indstrial Cluster Policy in Asia, Institute of Developing Economies-JETRO.*

Maack, K., Abouzeedan, A. and Hedner, T. (2010) 'Dimensions of quality in e-learning; An Innovation and Entrepreneurship University curriculum', *Working paper presented at FINPIN, Innovation and Entrepreneurship in Universities conference, 25-27 April, Joensuu, Finland.*

Maack, K., Klofsten, M. and Hedner, T. (2011) 'Venture Cup – the Nordic business plan competition', presented at conference: *World Association for Sustainable Development 2011* (WASD).

Marshall, A.(1920) 'Principles of economics: an introductory volume', *CosimoInc,* ISBN: 9781605208015.

Mason, C. and Stark, M. (2004) 'What do investors look for in a business plan?'*International Small Business Journal* 22(3), 227-248.

Moore, J. F. (1996) 'The death of competition: leadership and strategy in the age of business ecosystems', *HarperBusiness, ISBN: 0887308090*

Nonaka, I. and Takeuchi, H. (1995) 'The knowledge-creating company: How Japanese companies create the dynamics of innovation', *Oxford University Press, USA*, ISBN: 0195092694

Oakes, L. S., Townley, B. and Cooper D. J. (1998) 'Business Planning as Pedagogy: Language and Control in a Changing Institutional Field', *Administrative Science Quarterly*, volume 43, issue 2, pages 257-292, ISSN: 0001-8392.

Porter M. (1990) 'The comparative advantage of nations', *New York: Free Press.*

Ross, L. W. and Byrd, K. A. (2011) 'Assessment of Business Plan Competitions: A Search for Quality Measures', *United States Association for Small Business and Entrepreneurship (USASBE) 2011,* Pages 281-286, New Orelans, LA, USA.

Russell, R., Atchison, M. and Brooks, R. (2008) 'Business plan competitions in tertiary institutions: encouraging entrepreneurship education',*Journal of Higher Education Policy and Management* 30 (2): 123 – 138.

Schumpeter, J. (1934) 'The theory of economic development: an inquiry into profits, capital, credit, interest, and the business cycle', *Transaction Publishers*, ISBN: 0878556982.

Smith, A. (1776) 'The Wealth of Nations', *Everyman´s Library, USA*, ISBN: 9780679405641.

Smith, K. G., Locke, E. A. and Barry, D. (1990) 'Goal setting, planning, and organizational performance: An experimental simulation', *Organizational Behavior and Human Decision Processes*, volume 46, issue 1, pages 118-134, ISSN: 0749-5978.

Stopford, J. M. (2003)'Organizational learning as guided responses to market signal',*Handbook of Organizational Learning &Knowledge, Oxford: Oxford University Press,* pages 264-281.

Tarde, G. (1903) 'Laws of imitation', *Read Books*, ISBN: 9781447402541.

Wong, P-K., Ho, Y-P. and Singh, A. (2007) 'Towards an "Entrepreneurial University" model to support knowledge-based economic development: The case of the National University of Singapore',*World Development* 35 (6): 941 – 958.

FIGURES AND TABLES

Figure 1. "Global map of BPCs and location of Case examples"

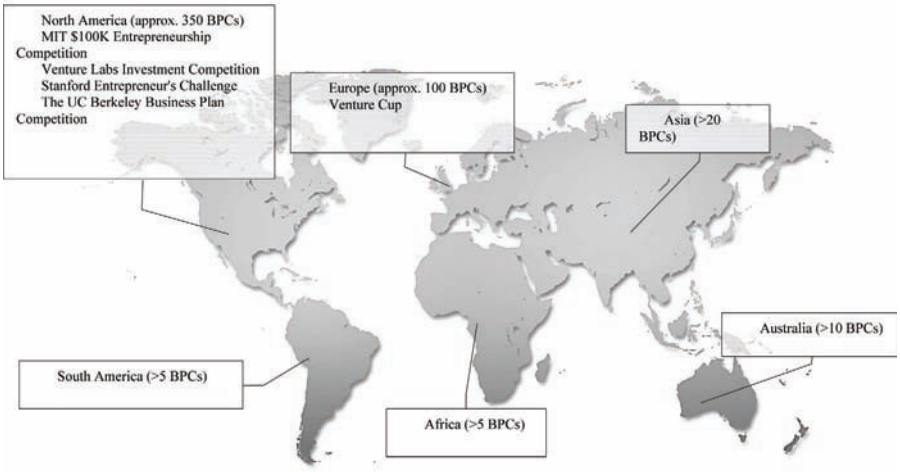

Figure 2. "Spread of Concept from 2 major benchmarks"

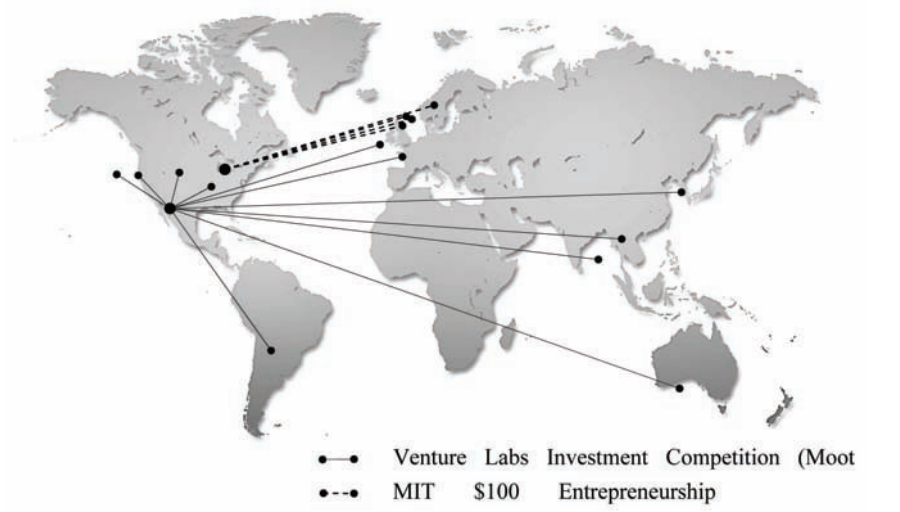

Table 1 – Business Plan Competitions from each Continent

Name	Start	Size	Country	Continent
African Innovation Price	2010		Rwanda	Africa
I Create India	2001		India	Asia
Rajasthan Business Plan Competition			India	Asia
Kerala University Business Plan Competition	2008		India	Asia
The Waseda University business plan competition			Japan	Asia
Shanghai Jiao Tong University CID Cup MBA Business Plan Competition	2002		China	Asia
HKUST Business School Business Plan Competition	2006		China	Asia
eChallenge	2004		Australia	Australia
London Entrepreneurs Challenge	2002		United Kingdom	Europe
BBSRC Business Plan Competition			United Kingdom	Europe
Venture Cup	1998		Sweden	Europe
Best of Biotech	2000		Austria	Europe
MIT $100K Entrepreneurship Competition	1990		USA	North America
Venture Labs Investment Competition (formerly Moot Corp)	1984		USA	North America
The Rice University Business Plan Competition	2000		USA	North America
The UC Berkeley BPC	1999		USA	North America
Stanford Entrepreneur's Challenge (E-Challenge)	1995		USA	North America
Latin Moot Corp Investment Competition	2001		Brazil	South America

Table 2. Important functions to implement a BPC in academic entrepreneurship ecosystems.

Function
Entrepreneurial academic programs
Business plan competitions
Business incubator network
Business accelerator network
Technology parks network
Knowledge transfers offices
Intellectual property centers
Business angel clubs
Funds procurement office
Links to research centers and laboratories
Networking with private and public programs focused on entrepreneurship
Senior leadership vision and engagement
External business and society sponsorship