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Just a Lemonade Stand

An Introduction to Student Entrepreneurship

Alka Gupta
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Despite the increasing popularity of entrepreneurship among students in colleges and university, there is a surprising scarcity of theoretical or empirical research on this topic. In this article, we define the concept of student entrepreneurship, delineate its domain, and demarcate its boundaries. We propose a preliminary typology of student entrepreneurship rooted in the works of three leading economists from the Austrian School of Economics: Joseph Schumpeter, Israel Kirzner, and Ludwig Lachmann. We also identify and discuss important challenges associated with the practice of student entrepreneurship. The article concludes by advancing a future research agenda for the study of student entrepreneurship.

Keywords: student entrepreneurship; archetypal entrepreneurship; entrepreneurship education

Student entrepreneurship has emerged as an important topic in popular media and public discourse in recent years. Though there is no reliable and comprehensive data on the exact number of student entrepreneurs in colleges and universities in United States, the level of entrepreneurial activity among college students appears to be quite high (Seymour, 2001). Notable examples of student entrepreneurs include, but are not limited to, Michael Dell (founded Dell Computers in his dorm room at the University of Texas), Mark Zuckerberg (created Facebook with his roommates at Harvard), and Larry Page (co-founder of Google as a student at Stanford). Businesses founded by students come in all shapes and sizes, ranging from high tech to low tech, manufacturing to service, local to global (Bower, 2003). Even as entrepreneurial activity among students continues to increase, there is a surprising lack of scholarly research related to the topic of student entrepreneurship.

Some educators and policymakers believe that student entrepreneurship helps students by providing them opportunities to combine theory and practice in a positive and pragmatic sense (Ridder & Sijde, 2006). Others argue that involvement in business activities, especially the kind of activities required to start a new business, during school years likely interferes with students' academic progress, which may adversely affect their future academic goals (Ndirangu & Bosire, 2004). These complex issues

need to be resolved to provide guidance to educators, students, parents, and policymakers. This article identifies and discusses the domain of student entrepreneurship, its contributions, and the many challenges its practices raise for various stakeholders.

The objective of this article is three-fold. First, it seeks to bring much needed clarity to the concept of student entrepreneurship. There is a high (and still increasing) rate of entrepreneurial activity among students and schools and colleges are investing valuable (financial and intellectual) resources to encourage student entrepreneurship. Unfortunately, scholarly dialog on this topic is almost negligible, and consequently our understanding of student entrepreneurship is quite limited. In this article, we offer a definition that delineates the domain of student entrepreneurship and demarcates its boundaries in an effort to build some consensus on what student entrepreneurship is (and is not).

Second, this article distinguishes between various forms of student entrepreneurship. In do so, we present a mutually exclusive preliminary typology of student entrepreneurs, identifying and providing examples of three types of student entrepreneurs. All student entrepreneurs are not the same and the potential of new ventures started by these entrepreneurs to become contributors to the (local and national) economy is not equal (Chrisman & McMullen, 2000). Further, scholars have relied on the intention and behavior model (Ajzen, 1991) to explore the psychological and situation cues underlying student entrepreneurship. Our study is timely because, on the one hand, student entrepreneurship is on rise and is garnering much attention in the media and college classrooms in United States and across the world; and on the other hand, scholars have expressed frustration on the confusion that exists related to student entrepreneurs (Marchand & Sood, 2014). We hope that borrowing the typology from the alternative paradigm—Austrian economics will reap the same benefit of providing new insights, as it has in the entrepreneurship research—the typology presented in this article will allow educators, researchers, and policymakers

to make sense of the different types of student entrepreneurs routinely observed in schools and colleges. This article gives researchers a framework to conduct research with student entrepreneurs, helping them better understand what they see and hear during their research. It will also provide educators and policymakers with a tool to help target their limited resources to the most high-potential student entrepreneurs and their ventures.

The final objective of the article is to explore some of the challenges engendered by student entrepreneurship. Student entrepreneurs, unlike other entrepreneurs, play a dual role of a student and an entrepreneur and therefore, need to balance the demands of their studentship with that of their entrepreneurship. This study, therefore, focuses on those undergraduate students who attend classes and also lead a start-up while enrolled in university courses. They do not wait to join any other firm to gain experience, confidence, or salary, nor do they have any family responsibilities. Studies show high number of students intend to pursue entrepreneurial activity after they graduate but less than 1 in 10 graduates actually embark on an entrepreneurial career (Kwong & Thompson, 2016). Student entrepreneurial activity is inhibited by the lack of start-up capital and excessive regulation and universities policies (Bailetti, 2011; Veciana, Aponte, & Urbano, 2005). Effectively balancing the quest for learning and scholarship with the financial and operations skills associated with starting and managing a business raises important issues for all stakeholders. Consequently, we discuss several problems and issues that may arise because of the practice of student entrepreneurship.

The remainder of this article is organized as follows: First, we define student entrepreneurship and draw its boundaries as a distinct field of study. Specifically, we advance a definition of student entrepreneurship based on common themes observed in the literature. Next, we introduce a preliminary typology of student entrepreneurs grounded in the work of three prominent scholars from Austrian School of Economics: (Joseph Schumpeter, Israel Kirzner, and Ludwig Lachmann). We believe our typology provides a theoretical framework for future scholars to understand and make sense of the differences among the many types of student entrepreneurs. Following the presentation of this typology, we identify important problems that the practice of student entrepreneurship may cause for the different stakeholders. In the last section of the article, we offer suggestions about the future of student entrepreneurship as a distinct field for scholarly inquiry.

Toward a Definition of Student Entrepreneurship

Student entrepreneurship has generated a substantial interest in the media and public discourse. Many popular books have been written about student entrepreneurs (e.g., *Beyond the Lemonade Stand*), and hundreds, if not thousands, of articles and stories about them have appeared in the media. In recent years, a large number of U.S. and international colleges and universities have acknowledged the fundamentally important role of student entrepreneurship in society and actively engaged in promoting student entrepreneurship and students' enterprising behavior (Vesper & Gartner, 2001.). The Global Student Entrepreneur Award, started at St. Louis University in 1988 for students of midwestern United States, has since expanded to include many countries. Student entrepreneurship clubs are widespread in U.S. schools and colleges and the number of such clubs is steadily increasing (Vesper & Gartner, 1997). Universities are receiving substantial donor funding to start institutes and centers (e.g., the Edson Student Entrepreneur Initiative at Arizona State University) to encourage student entrepreneurship (Krass, 2004). More than 1,600 schools now offer about 2,200 entrepreneurship-related courses that seek to increase the understanding and knowledge of entrepreneurship and new business among students and infuse them with enterprise and entrepreneurial skills (Katz, 2003; Vesper & Gartner, 1997). There exists a general consensus among entrepreneurship scholars and educators that an implicit (if not always explicit) objective of entrepreneurship courses and programs is to encourage and prepare students to become entrepreneurs and start new businesses.

Across the globe entrepreneurially oriented students have identified business ideas and successfully exploited them to develop new businesses. For many student entrepreneurs, the businesses started during their school years with the help of limited tangible and intangible resources provided by universities or any other source became the stepping stones to a life-long career as an entrepreneur (e.g., Bill Gates, Steve Jobs). This may be especially true in societies, such as the United States, where entrepreneurship-related courses have historically attracted large numbers of students (Katz, 2003) and there has been a long tradition of young people starting their own business. With recent trends in globalization and outsourcing pointing to the fact that college education is no longer a "sheltered pathway" to a job with a large firm

for young men and women in developed economies like the United States (Nabi, Holden, & Walmsley, 2006: 373), schools and colleges have encouraged and motivated students to start their own businesses and pursue entrepreneurial careers.

Despite the popular interest in student entrepreneurship among schools and colleges, almost no scholarly research exists on this topic. There is no agreement among scholars about what student entrepreneurship is and what activities constitute student entrepreneurship. The fact that the phrase “student entrepreneurship” combines two words that have traditionally been considered incongruent, if not inconsistent, has probably been an important obstacle to defining and discussing student entrepreneurship.¹ There are disagreements about the domain of entrepreneurship (Chiles, Bluedorn, & Gupta, 2007; Shane & Venkataraman, 2000); adding the qualifier prefix “student” further complicates this definitional debate.

The concept of student entrepreneurship means different things to different scholars. A large group of researchers use the phrase “student entrepreneurs” to refer to students enrolled in an entrepreneurship course or program (Fiet, 2001; Robinson, Huefner, & Hunt 1991). A second group of researchers understands student entrepreneurs as students who are engaged in preparing a business plan for a new or existing growth-oriented business (Katz, Harshman, & Dean, 2000). And a third group views student entrepreneurs as individuals who are actively pursuing academic coursework and are running a company (alone or with others) at the same time (Ridder & Sijde, 2006).

Research on student entrepreneurship to date has relied on intention models such as the Theory of Planned Behavior (Ajzen, 1991) or Social Cognitive Theory (Lent et al., 2002), to examine the intention and entrepreneurial behavior underlying the student entrepreneurship. Using data of U.K. business students, Kwong and Thomsson (2016) investigated the attitudinal differences between those student entrepreneurs, who immediately start the entrepreneurial activity after graduating and those who wait and watch. These authors suggest that student entrepreneurs who rapidly move into entrepreneurial activities are more likely to perceive themselves as natural leaders and are confident of succeeding. Pfeifer, Šarlija, and Zekić Sušac (2016) explored personal and situation antecedents of entrepreneurial intentions of business students in Croatia.

In reviewing the aforementioned definitions, we do not strive to find a statement that encompasses all aspects of these seemingly disparate definitions, nor do we focus on the intention and the behavior model as the basis for the student entrepreneurship. Instead, we provide a definition that integrates common points of view, while inviting the focus on the founder of the venture—the student entrepreneur. We believe that student entrepreneurs have dual roles: a student as well as an entrepreneur. They go to school and take classes like traditional students, but are involved in starting or managing a for-profit business (alone or with others) like conventional entrepreneurs. Consequently, student entrepreneurship is the process involving the innovative use and combination of resources to explore and pursue opportunities through the creation of a for-profit business organization by a student. Obviously, our definition of student entrepreneurship is predicated on the belief that defining “entrepreneurship” is logically linked with defining “entrepreneur” in that entrepreneurship is what entrepreneurs do when they are being entrepreneurs (Peredo & McLean, 2006). Our definition is also consistent with that of Marchand and Sood (2014). Through interviews these authors explored the cognitive skills and the unconscious drives of student entrepreneurs during pre- and post-university stages.

Entrepreneurship scholars are well aware of the many definitions of entrepreneurship, ranging from broad (entrepreneurship as self-employment) to narrow (entrepreneurship in growth-oriented business and corporations). Any single definition of entrepreneurship is seldom able to capture the complete domain of the field. The definition of student entrepreneurship offered in this article reflects some of our basic assumptions. First, student entrepreneurs engage in the process of creating value by combining and recombining resources, such as knowledge acquired through entrepreneurship programs, or physical space, university reputation, and grants in new ways. Unlike other entrepreneurs, student entrepreneurs have the opportunity to explore these limited resources, which they use to gain new network connections. These resources may be helpful in establishing business or could be a tool to acquire additional resources for starting a new venture. Entrepreneurs, including student entrepreneurs, are not motivated by any one common objective, but by a diverse set of personal goals, economic and non-economic (Shane, Locke, & Collins, 2003). Second, these resource

combinations are intended primarily to explore and pursue opportunities to earn financial rewards; this includes the discovery, creation, and exploitation of opportunities to generate future goods and services (Chiles et al., 2007; Shane & Venkataraman, 2000). Though student entrepreneurs exhibit similar entrepreneurial behavior as archetypal entrepreneurs, unlike them, students are limited in terms of resources and entrepreneurial experience when starting a new venture while still in school. They rely on their faculty for consultation, advice, education, and new connections, or take advantage of the university's reputation to acquire finances for their business. And third, student entrepreneurship involves offering new products or services through the creation of new organizations (Katz & Gartner, 1988). Importantly, student entrepreneurship occurs only in the context of a new organization. This emphasis on the creation of a new organization sets student entrepreneurship apart from other more loosely structured initiatives that students may pursue such as ad hoc self-employment (e.g., students who mow lawns or sing in a bar on a freelance basis) as well as more hierarchically structured arrangements such as employment in another business (e.g., a student worker who acts entrepreneurially in a new and/or small business (Kuratko, 2006)) or internship in a large entrepreneurially oriented corporation (King, Pearson, & Young, 1997; Zahra, Nielson, & Bogner, 1999)).

A Proposed Typology of Student Entrepreneurship

Our definition of student entrepreneurship highlights the large domain of the phenomenon of student entrepreneurship and the diversity of people involved in this activity. In this section, we propose a three-category typology for describing student entrepreneurs. Our typology is designed to assist scholars in conducting research on student entrepreneurs and better understanding the antecedents, processes, and consequences of different forms of student entrepreneurship. Of course, all typologies are imprecise (Hornaday, 1990) and our quest for parsimony may have caused us to overlook other types of student entrepreneurs. We are not aware of any existing typologies of student entrepreneurs, so we believe that this article is a small, albeit important, first step toward improving scholarly understanding of this complex phenomenon.

Our proposed typology identifies three distinctive types of student entrepreneurs based on alternative conceptualizations of entrepreneurship derived from

Austrian economics. Though long viewed as outsiders whose rebellious tenets pitted them against mainstream economic thought, three economists have gained widespread respectability over the past 30 years as a heterodox school, both within economics (Vaughn, 1994) and, more recently, among organizational scholars who predict a vital role for their ideas in 21st-century organizational research (Eisenhardt, 2002). Indeed, Austrian economics has become recognized in many organizational circles as the leading economic approach to entrepreneurship research (Chiles et al., 2007; Venkataraman, 1997; Shane, 2000).

The three economists that inform our typology of student entrepreneurs are Joseph Schumpeter, Israel Kirzner, and Ludwig Lachmann. These three scholars differ in their understanding of entrepreneurs and the role they play in the economy (Gloria-Palermo, 1999; Vaughn, 1994). We describe and provide illustrative examples of these three forms of student entrepreneurs, which we label the Rocker, the Arbitrageur, and the Imaginator. While all student entrepreneurs may love what they do and their values, identities, or circumstances compel them to engage in entrepreneurial activity, major differences exist between these entrepreneurs and the types of ventures they start.

The Rocker

Joseph Schumpeter was perhaps the first modern scholar to make a significant contribution to the theory of entrepreneurship (Hughes, 1993; Praag, 1999). He saw entrepreneurs as heroic figures who disrupt the prevailing equilibrium at rare and irregular intervals (Schumpeter, 1934). He believed that though new inventions are "trivially and abundantly available and known to all sorts of people" in society (Witt, 1995: 219), entrepreneurs have the unique ability to combine these inventions with available resources to introduce new innovations in products, process, markets, resources, and organization (Schumpeter, 1942). He argued that innovative entrepreneurs conceived new resource combinations to capture profits, which subsequently attracts imitators and brings the system back to a state of equilibrium (Schumpeter, 1934).

We refer to student entrepreneurs who perform such functions as the Rockers. They identify a commonly available invention (e.g., the Internet) and combine it with other resources (e.g., their friends) to introduce new innovations (e.g., social networking websites such as MySpace and Facebook). Their business germinates from their interest in a "cool" technology that they believe can

be used in new ways. These student entrepreneurs usually start with limited resources that they recombine in new ways to introduce innovative products and services that disrupt the prevailing equilibrium and “rock the boat.” In time these new products and services engender entirely new industries or fields that are likely to attract imitators. The Rockers, driven by the pursuit of profit, prefer to exit before the imitators move in or other newer technologies threaten their business. Therefore, student entrepreneurs need to invest time to remain competitive in the industry and bring innovative products to the market. It would probably not be incorrect to describe Mark Zuckerberg, the founder of Facebook, as a geek who loved computers. When he “starts a programming project, all else takes a backseat. He doesn’t eat, doesn’t sleep, doesn’t talk to friends” (Grynbaum, 2004). He used his knowledge of computers and the Internet to develop new innovative products and services (his first one was when he was in high school) before introducing Facebook to a receptive student audience in February 2004 during his undergraduate days at Harvard. From there Facebook quickly spread to other universities with about 1.6 million monthly U.S. visitors in 2006 (Delaney, Buckman, & Guth, 2006). Reportedly, he turned down a \$750M buyout offer from Yahoo, holding out instead for as much as \$2B. Like a typical Rocker, Zuckerberg started with very limited resources, used a technology that was commonly available then (in 2004), and combined it with an idiosyncratic resource—his social network, to start a company that attracted significant venture capital funding in 2005 (\$13 million), and is pursuing “serious discussion[s]” to sell his company to the largest bidder (Delaney et al., 2006).

The Arbitrageur

During the past four decades, no economic theorist has devoted more attention to the entrepreneur than Kirzner. He views the entrepreneur as an arbitrageur who, through superior alertness, addresses the needs of customers not yet realized by existing providers (Kirzner, 1973). Because these opportunities are readily identifiable by entrepreneurs who discover opportunities through their unique ability of alertness, entrepreneurs do not bear the risk of making a mistake in identifying opportunities (Kirzner, 1982). Further, Kirzner’s entrepreneurs seek opportunities that can be easily exploited by buying low and selling high, and so require no or negligible capital investment (Hébert & Link, 1982; Kirzner, 1973). These entrepreneurs derive their advantage from having good knowledge of the place and time they live in (“tacit knowledge”; Hayek, 1945; Polanyi, 1966). The needs

identified by them tend to be so context-specific that they usually do not even appear on the radar of larger and less proximate providers.

A relatively large number of student entrepreneurs can be classified as arbitrageurs. They identify needs that local businesses are unable or unwilling to meet at a reasonable and acceptable price. The solutions crafted to fill market gaps are initially small in scale and limited in scope. The small scale and local scope tends to limit resource requirements, enabling student entrepreneurs to operate relatively independently from resource suppliers (Pfeffer & Salancik, 1978), which promotes flexibility and quickens their entry into and exit from different economic activities.

Insomnia Cookies is an example of a venture begun by an Arbitrageur student entrepreneur who discovered existing opportunities and met market needs not provided by other parties. Started at the University of Pennsylvania in 2003 by a junior, Seth Berkowitz, Insomnia Cookies provides cookies and beverages to students at late-night hours. By offering students a warm home-cooked food option during night hours, Berkowitz addressed a market need largely ignored by existing businesses in town. Aware of the fact that students craved convenient food late at night when they study or party, Berkowitz recognized an opportunity that was unmet and exploited it to offer cookies and (non-alcoholic) drinks right at students’ doorsteps. Berkowitz’s business was based on his unique knowledge of student needs.

As undergrads, we figured out what was missing from the perfect college experience: dependable late-night food delivery. It seems that every night at about the same time, students get hungry, either because they study hard, they party hard, or both....As you probably know, the only food available at night (without having to trek to the market) is greasy and heavy. Insomnia Cookies was born out of our dislike of heavy meals late at night, our love of food delivery, and our realization that by the time we got hungry at night, nothing was open. (<http://www.insomniacookies.com/aboutus.aspx>)

Today, Berkowitz’s business has expanded to seven U.S. university campuses. Other Arbitrageurs have followed in Berkowitz’s footsteps and started businesses that provide late-night snack options to students in different campuses. Because Arbitrageurs meet local needs and are not dependent on resource providers, starting these new business is relatively easy.

Since these businesses usually have a short service-to-payment cycle, exit cost is not high. Arbitrageurs can exit any time without a significant loss of capital. Low exit cost associated with these businesses is an attractive feature for students who are vulnerable to fluctuating demands on their time because of coursework, schedule conflicts, and career instability.

The Imaginator

Though Ludwig Lachmann is one of the central figures in Austrian economics, his paradigm for entrepreneurship has been introduced to management and organizational scholars only in recent years (Chiles & Choi, 2000; Chiles et al., 2007). According to Lachmann, entrepreneurs imagine possible futures, choose among these mental creations, and plan on how to achieve the desired future. He views the entrepreneur as a creative actor, as someone who devises a new organization to fulfill his vision for the future (Lachmann, 1976). In pursuing their plans, entrepreneurs usually have to invest their own resources and get other people to invest their resources as well. Imaginators continuously create and exploit opportunities through bundling and rebundling resources in different ways (Lachmann, 1986). They are driven by their creative imagination and passion for the artifacts they create. These entrepreneurs are usually loyal to the businesses they start and interested in staying with the businesses and growing them, usually not selling even if an opportunity presents itself. They love their business and derive personal satisfaction from the fulfillment of their dreams.

Among the most prominent examples of this type of student entrepreneur is Michael Dell. He started Dell computers in his dorm room at the University of Texas with a simple idea of providing affordable personal computers to college students. He believed in the possibility of a direct relationship between the computer manufacturer and the customer and passionately worked to change the existing supply chain structure in the PC industry to become a low-cost provider of customized computer systems. Though he had limited resources and started small (with about \$1000 in 1984), his vision was big and had far-reaching consequences for the entire PC industry. He stayed with the company through good and bad times, and, even today, Dell, one of the richest people in the world, is the active CEO of Dell Computers. Typical of an Imaginator, Dell created a multi-billion dollar company from nothing and remains closely associated with his company to this day.

Though not every student entrepreneur classified as an Imaginator becomes as successful as Dell, what distinguishes these student entrepreneurs from others is their beliefs in their ideas and their willingness to stick with them through thick and thin. Imaginators, however, do not follow their visions blindly. They are sensitive to changes in external conditions that may influence the competition in their industries and are open to changing their vision as well as their plans to achieve them as circumstances change. Further, since Imaginators invest their own resources in launching new businesses, they struggle to maintain course schedules and often skip classes as they spend more time strategizing about different sources for investment. They aim to get high returns before exiting.

The above discussion highlights three types of student entrepreneurs and outlines major differences in their motivations and behaviors to define, evaluate, and exploit opportunities.

Student Entrepreneurship and Challenges for Stakeholders

In this section, we identify and discuss some challenges that might arise for the different stakeholders due to student entrepreneurship. These challenges frequently evolve from differences in the traditional objectives associated with centers of education like schools and colleges and the desires and goals of student entrepreneurs. They also derive from the diverse personalities, agendas, incentives, and values of teachers, university administrators, and student entrepreneurs, as well as the newness of student entrepreneurship.

Student entrepreneurship, like other forms of entrepreneurship, requires a significant time commitment (Katz & Green, 2007). Of course, for the student committing time to developing and growing a new business is likely to be more beneficial than engaging in many other traditional activities associated with student life such as partying or working in a low-skill job (Hanson & Engs, 1992). However, engagement in business activities as a student presents a problem for university management (Ndirangu & Bosire, 2004). The conventional university mission is focused on scholarship and service to society (Stahler & Tash, 1994). The large time commitment required to start or manage a new business is likely to interfere with students' academic progress, which may adversely affect their long-term academic pursuits and achievements.

To some, student entrepreneurship holds the promise of improving students' knowledge about the business world. Many people believe that being in two places at the same time (the university and the business world) helps student entrepreneurs translate the theoretical knowledge they get in the classroom into practical application and their business experience in running their own firms into knowledge that they can bring back to the classroom (Ridder & Sijde, 2006). The learning environment of student entrepreneurs is not confined just to the classroom or a textbook, but expands to include the market where competitive, productive, social, and political forces intersect (Chagas & Silva, 1997).

Yet, this emphasis on realism is problematic for faculty. Today, a large number of faculty members in business schools have always been in the academic world and never held a "real" job (Pfeffer & Fong, 2002). There are even fewer faculty members who have entrepreneurial experience. Most university instructors completed a rigorous doctoral program because of their passion for learning and teach courses that they love. Their knowledge is largely theoretical, based on books and published papers. Student entrepreneurs are seldom interested in theoretical knowledge (Fiet, 2001). They are interested in understanding how the information they are being provided in classes applies to their business. Faculty with no entrepreneurial experience may find it difficult to make the connection between their theoretical knowledge and students' businesses (Aronsson, 2004), potentially reducing the student entrepreneur's interest in the subject.

Student entrepreneurship can also present problems for students who are not starting or managing their own business. Many business school courses require students to work in teams (Baldwin, Bedell, & Johnson, 1997), typically three to five students, on a specific project. Students who work with student entrepreneurs on projects may find that the time and effort they spent on the group work was appropriated by their entrepreneurial colleague for his/her business without their permission or knowledge. Though these concerns can be somewhat alleviated by having students sign confidentiality agreements, a large part of the knowledge generated in these projects may be uncodifiable (Katz et al., 2000). In some situations, student entrepreneurs may not even consciously remember that the information they are using in their businesses was developed as part of a group project. Thus, working with student entrepreneurs in course projects may put other students at risk of providing free research and consulting service without any direct economic benefit to themselves.

Discussion and Future Research Implications

The concept of student entrepreneurship has gained recognition and popularity in our society. The objective of this article has been to arouse scholarly interest in the phenomenon of student entrepreneurship. We consider student entrepreneurship to be a particularly exciting and fruitful research topic and it is our hope that this article will bring us a step closer toward legitimizing and encouraging student entrepreneurship as a field of research.

The working definition of student entrepreneurship put forward in this article is intended to facilitate a more detailed examination of the two components of student entrepreneurship, namely the student element and the entrepreneurship element. Our discussion highlights the need to better understand the domain of student entrepreneurship. We believe future empirical and conceptual work will help establish a more comprehensive picture of student entrepreneurship.

Many of the issues explored in this article are typical of any new field of research: the need to draw boundaries so as to delimit scope and clarify whether it really can be an independent field of research, and the need to identify differences within the field. To conclude, we will elaborate on topics and issues we consider important in order to advance our understanding of student entrepreneurship: student entrepreneurship as an independent field of research, assessing the impact of student entrepreneurship, and clarifying the different forms of student entrepreneurship.

One of the most controversial issues we foresee is whether student entrepreneurship can be a legitimate and independent field of research. Some may consider student entrepreneurship a subcategory of entrepreneurship, in which the student is just a subject to study and test entrepreneurial phenomena. In this article, we have tried to identify the distinctive domain of student entrepreneurship and to distinguish it from other forms of entrepreneurship. We argue that student entrepreneurship differs from other forms of entrepreneurship as it combines studentship and entrepreneurship, two traditionally incongruent concepts. We believe that student entrepreneurship deserves considerable attention as a scholarly phenomenon. It has enormous potential to inform and enhance the field of entrepreneurship as well as the study of higher education, as it provides an excellent opportunity to challenge and rethink our conventional views and assumptions about both entrepreneurship and higher education.

Assessing the impact of student entrepreneurship on the different stakeholders will be a great challenge for researchers, educators, and administrators. The real problem may not be the measurement of the performance of the business started by a student entrepreneur, but how to quantify and measure the overall impact of student entrepreneurship. More effort must be made to develop useful and meaningful measures that capture the impact of student entrepreneurship and reflect the objectives pursued by the different stakeholders. Considering the attention that student entrepreneurship has received in the last few years in popular media and the establishment of new institutes and centers to encourage entrepreneurship on campuses, it is clear that more research is needed to understand and measure its performance outcomes and impact on all the stakeholders involved.

This article emphasizes the many forms of student entrepreneurship by identifying three different types of student entrepreneurs. Our proposed typology serves only to illustrate the key differences that might exist among three types of student entrepreneurs. It is certainly not the final solution to understanding student entrepreneurship and future research may present other typologies. A promising area of research lies in empirically testing our proposed typology and identifying their various antecedents, such as individual, organizational, cultural, and economic variables. This poses additional interesting questions. Assuming that student entrepreneurship, like conventional entrepreneurship, involves various stages (e.g., an intention formation stage, a start-up stage, a growth stage, etc.), how do the different types of student entrepreneurs navigate these stages differently? How do the various antecedents affect student entrepreneurship at different stages? One could argue that the common strand of studentship would lead these entrepreneurs to behave in similar ways during the different stages. On the other hand, contextual and motivational differences may influence the various types of student entrepreneurs in different ways at every stage.

It is noteworthy that this is the first article exclusively devoted to student entrepreneurship. We believe that a wide variety of research questions requires further attention. Student entrepreneurship can benefit from research drawing from multiple disciplinary perspectives and literatures, such as that on entrepreneurship, higher education, and teaching pedagogy. We conclude with a list of questions that provide only a snapshot of important issues.

- **How do student entrepreneurs balance their academic and business goals simultaneously?**
- **Should universities encourage student entrepreneurship? If yes, how?**
- **Future research is warranted to explore whether some colleges are more or less likely to foster student entrepreneurship. If so, why?**
- **What is the role, if any, of individual teachers in student entrepreneurship?**

Most empirical research findings suggest the connection between university entrepreneurship programs and entrepreneurial activity, in a way to investigate how universities can foster student entrepreneurs (Souitaris, Zerbini, & Al-Laham, 2007). Examining six Iranian universities, Karimi et al. (2016) found that elective courses offered at these universities have positive impact on the students' entrepreneurial intentions. Student entrepreneurs look for practical experience and, therefore, universities have moved away from classroom settings to action-oriented approaches in teaching entrepreneurship (Rasmussen and Sørheim, 2006). This evidence supports the premise that student entrepreneurs acquire entrepreneurial skills and knowledge while studying the entrepreneurial courses. Forbes (2015) reports that over the years, high numbers of student entrepreneurs come from top-tier universities and colleges, such as Cooper Union and Stanford University. However, universities can foster student entrepreneurs by also hiring faculty with business experience who will not only impact the entrepreneurial skills of students, but also provide them with much needed network connections to start a new venture. Universities may also change their policies to influence the amount of resources students entrepreneurs are eligible to receive while enrolled at the university (Bailletti, 2011). Future research should explore how instructors can go beyond their roles of teaching and research to increase the number of student entrepreneurs.

Scholars agree that cultural and social norms are important antecedents of entrepreneurial intentions (Kwong & Thompson, 2016). The GUESSS (Sieger, Fueglistaller, & Zellweger, 2014) findings suggest that students entrepreneurs in developed industrialized countries are attractive to and looked favorably upon by their "important others." Self-employment is becoming more common in Europe, with nearly two in three students intending to start their own businesses immediately upon graduation. Future research should

explore whether cultural differences influence the motivations and processes of student entrepreneurship differently across countries. As mentioned above, student entrepreneurs are motivated by personal gains but through their new business, they also provide jobs and decrease unemployment. Future research should explore the link between student entrepreneurship and economic development, and examine ways that student entrepreneurship can contribute to regional development.

We hope that the focus on student entrepreneurship

in this study will attract other scholars and educators to this field. The level of scholarly attention on student entrepreneurship is far behind its practice. We believe that the answers to some of the questions outlined above, and the further discussion they engender, will help motivate more attention and rigorous inquiry in this field. We look forward to other scholars joining in the effort to understand the complex, but interesting, phenomenon of student entrepreneurship.

ENDNOTE

¹Studentship has traditionally been associated with academic goals such as acquiring and learning new knowledge and skills; entrepreneurship generally refers to financial objectives such as running a profitable business.

REFERENCES

- Ajzen, I. (1991). "The theory of planned behavior." *Organizational Behavior and Human Decision Processes* 50 (2): 1–63.
- Aronsson, M. (2004). "Entrepreneurship matters—but does entrepreneurship education? An interview with David Birch." *Academy of Management Learning & Education*, 3: 289–292.
- Bailetti, T. (2011). Fostering student entrepreneurship and university spinoff companies. *Technology Innovation Management Review*, 1(1): 7–12.
- Baldwin, T. T., Bedell, M. D., & Johnson, J. L. (1997). "The social fabric of a team-based M.B.A. program: Network effects on student satisfaction and performance." *Academy of Management Journal*, 40: 1369–1397.
- Bower, S. K. (2003). Introduction. *Student Entrepreneurs: 14 Undergraduate All-Stars Tell Their Stories*. St. Louis: Premium Press America.
- Chagas, F. C. D., & Silva, F. (1997). "A national programme for dissemination of the discipline 'new venture creation' in Brazilian universities: One proposed methodology." *USASBE Paper Proceedings*.
- Chiles, T. H., Bluedorn, A. B., & Gupta, V. K. (2007). "Beyond creative destruction and entrepreneurial discovery: A radical Austrian approach to entrepreneurship." *Organization Studies*, 28: 467–493.
- Chiles, T. H., & Choi, T. Y. (2000). "Theorizing TQM: An Austrian and evolutionary economics interpretation." *Journal of Management Studies*, 37(2): 185–212.
- Chrisman, J. J., & McMullan, W. E. (2000). "A preliminary assessment of outsider assistance as a knowledge resource: The longer term impact of new venture counseling." *Entrepreneurship Theory and Practice*, 24(3): 37–53.
- Delaney, K. J., Buckman, R., & Guth, R. A. (2006). "Facebook, riding a web trend, flirts with a big-money deal." *Wall Street Journal*, September 21.
- Eisenhardt, K. M. (2002). OMT Distinguished Scholar Address. Academy of Management Meetings, Denver, CO.
- Fiet, J. O. (2001). "The theoretical side of teaching entrepreneurship." *Journal of Business Venturing*, 16: 1–24.

- Forbes, D. (2015). The infrastructure of entrepreneurial learning. In J.R. Mitchell, R.K. Mitchell & B. Randolph-Seng (Eds.), *Handbook of Entrepreneurial Cognition*, pp. 364–382. Cheltenham, UK: Edward Elgar.
- Gloria-Palermo, S. (1999). *The evolution of Austrian economics*. New York: Routledge.
- Grynbaum, M. M. (2004). Mark E. Zuckerberg '06: The whiz behind thefacebook.com. *The Harvard Crimson*, June 10.
- Hanson, D. J., & Engs, R. C. (1992). "College students drinking problems. A national study." *Psychological Report*, 71: 39–42.
- Hayek, F. A. (1945). "The use of knowledge in society." *American Economic Review*, 35: 519–530.
- Hébert, R. F., & Link, A. N. (1982). *The entrepreneur*. New York: Praeger.
- Hornaday, R. W. (1990). "Dropping the e-words from small business research: An alternative typology." *Journal of Small Business Management*, 28: 22–33.
- Hughes, J. (1993). "American economic history and the entrepreneur." *Advances in the Study of Entrepreneurship, Innovation and Economic Growth*, 6: 1–20.
- Karimi, S., Biemans, H. J., Lans, T., Chizari, M., & Mulder, M. (2016). "The impact of entrepreneurship education: A study of Iranian students' entrepreneurial intentions and opportunity identification." *Journal of Small Business Management*, 54(1): 187–209.
- Katz, J. A. (2003). "The chronology and trajectory of American entrepreneurship education 1876–1999." *Journal of Business Venturing*, 18(2): 283–300.
- Katz, J. A., & Gartner, W. B. (1988). "Properties of emerging organizations." *Academy of Management Review*, 13(3): 429–441.
- Katz, J. A., & Green, R. P. (2007). *Entrepreneurial small business*. NY: McGraw-Hill.
- Katz, J. A., Harshman, E. F., & Dean, K. L. (2000). "Nondisclosure agreements in the classroom: A student entrepreneur's refuge or risk." *Journal of Management Education*, 24(2): 234–253.
- King, B., Pearson, S., & Young, J. D. (1997). A national survey of Canadian co-op coordinators' attitudes toward volunteer positions and co-op student entrepreneurship. *Journal of Cooperative Education*, 32(3): 70–79.
- Kirzner, I. M. (1973). *Competition and entrepreneurship*. Chicago: University of Chicago Press.
- Kirzner, I. M. (1982). *Method, process and Austrian economics*. Lexington, MA: Lexington Books.
- Krass, A. (2004). "Donor gives \$5.4 million for student entrepreneurs." *The Business Journal of Phoenix*, October 20.
- Kuratko, D. F. (2006). "A tribute to 50 years of excellence in entrepreneurship and small business." *Journal of Small Business Management*, 44: 483–492.
- Kwong, C., & Thompson, P. (2016). "The when and why: student entrepreneurial aspirations." *Journal of Small Business Management*, 54(1): 299–318.
- Lachmann, L. M. (1976). "On the central concept of Austrian economics: Market process." In E. Dolan (Ed.), *The foundations of modern Austrian economics* (pp. 126–132). Kansas City, MO: Sheed & Ward.
- Lachmann, L. M. (1986). *The market as an economic process*. Oxford: Basil Blackwell.
- Lent, R. W., Brown, S. D., and Hackett, G. (2002). "Social Cognitive Career Theory," in *Career Choice and Development*, 4th ed. Eds. D. Brown and Associates. San Francisco, CA: Jossey-Bass, 255–311.
- Marchand, J. and Sood, S. (2014). "The alchemy of student entrepreneurs: Towards a model of entrepreneurial maturity." *Int. J. Entrepreneurship and Innovation Management*, 18(1): 75–92.

- Nabi, G., Holden, R., & Walmsley, A. (2006). Graduate career-making and business start-up: A literature review. *Education + Training, 48*(5): 373–385.
- Ndirangu, M., & Bosire, J. (2004). "Student entrepreneurship on campus: A survival response or a career rehearsal? The case of Egerton University student entrepreneurs." *EASSRR, 20*(1): 51–66.
- Peredo, A. M., & McLean, M. (2006). "Social entrepreneurship: A critical review of the concept." *Journal of World Business, 41*: 56–65.
- Pfeffer, J., & Fong, C. T. (2002). "The end of business schools? Less success than meets the eye." *Academy of Management Learning & Education, 1*: 78–95.
- Pfeffer, J., & Salancik, G. R. (1978). *The external control of organisations*. New York, NY: Harper & Row.
- Pfeifer, S., Šarlija, N., & Zekić Sušac, M. (2016). Shaping the entrepreneurial mindset: Entrepreneurial intentions of business students in Croatia. *Journal of Small Business Management, 54*(1): 102–117.
- Polanyi, M. (1966). "The logic of tacit inference." *Philosophy, 41*(155): 1–18.
- Pragg, C. (1999). "Some classic views on entrepreneurship." *De Economist, 147*: 311–335.
- Rasmussen, E. A., & Sørheim, R. (2006). "Action-based entrepreneurship education." *Technovation, 26*(2): 185–194.
- Ridder, A., & Sijde, P. (2006). "Launching students into enterprises: Experiences with technology as the launching platform." *International Journal of Knowledge Management Studies, 1*(1/2): 121–132.
- Robinson, P. B., Huefner, J., & Hunt, H. K. (1991). "Entrepreneurship research on student subjects does not generalize to real world entrepreneurs." *Journal of Small Business Management, 29*: 42–50.
- Schumpeter, J.A. (1942). *Capitalism, socialism and democracy*. NY: Harper and Brothers.
- Schumpeter, J. A. (1934). *The theory of economic development*. Cambridge, MA: Harvard University Press.
- Seymour, N. (2001). "College student entrepreneurs: Motivations and challenges," *EDRS Report Number ED 462878*.
- Shane, S. (2000). "Prior knowledge and the discovery of entrepreneurial opportunities." *Organization Science, 11*(4): 448–469.
- Shane, S., Locke, E. A., & Collins, C. J. (2003). "Entrepreneurial motivation." *Human Resource Management Review, 13*(2): 257–279.
- Shane, S., & Venkataraman, S. (2000). "The promise of entrepreneurship as a field of research." *Academy of Management Review, 25*: 217–226.
- Sieger, P., Fueglistaller, U., & Zellweger, T. (2014). "Student entrepreneurship across the globe: A look at intentions and activities." *St. Gallen: Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG)*.
- Souitaris, V., Zerbinati, S., & Al-Laham, A. (2007). "Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources." *Journal of Business Venturing, 22*(4): 566–591
- Stahler, G. J., & Tash, W. R. (1994). "Centers and institutes in the research university: Issues, problems, and prospects." *Journal of Higher Education, 65*: 540–554.
- Vaughn, K. (1994). *Austrian economics in America: The migration of a tradition*. Cambridge: Cambridge University Press.
- Veciana, J. M., Aponte, M., & Urbano, D. (2005). "University students' attitudes towards entrepreneurship: A two countries comparison." *The International Entrepreneurship and Management Journal, 1*(2): 165–182.
- Venkataraman, S. (1997). "The distinctive domain of entrepreneurship research: An editor's Perspective", In J. Katz & R. Brockhaus (Eds.). *Advances in entrepreneurship, firm emergence, and growth* (3rd. ed., pp. 119–138). Greenwich, CT: JAI Press.

- Vesper, K. H., & Gartner, W. B. (1997). "Measuring progress in entrepreneurship education." *Journal of Business Venturing*, 12(4): 403–421.
- Vesper, K. H., & Gartner, W. B. (2001). Compendium of entrepreneur programs. *University of Southern California, Lloyd Greif Center for Entrepreneurial Studies, Los Angeles.*
- Vesper, K. H., & Gartner, W. B. (1999). *University entrepreneurship programs—1999*. Los Angeles, CA: Lloyd Greif Center for Entrepreneurial Studies, Marshall School of Business, University of Southern California.
- Witt, U. (1995). Schumpeter vs. Hayek: Two approaches to evolutionary economics. In G. Meijer (Ed.). *New Perspectives on Austrian Economics* (pp. 81–101). New York, NY: Routledge.
- Zahra, S. A., Nielson, A. P., & Bogner, W. C. (1999). "Corporate entrepreneurship, knowledge, and competence development." *Entrepreneurship Theory & Practice*, 24: 169–189.

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