



The importance of education in the entrepreneurial process: a world view

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Abstract

Purpose – The aim of this study was to determine what facilitators and impediments to regional and global entrepreneurship exist, as identified by the 145 industry contacts globally surveyed, and if education stood out as a critical factor.

Design/methodology/approach – An electronic, open-ended survey was conducted; responses were categorized into three groups of factors – i.e. economic, social and personal – and analyzed accordingly by region and job function of respondent.

Findings – The survey revealed many similarities among responses, regardless of country of origin; although education was not the most frequently cited factor critical for successful entrepreneurship, it did rate highly in comparison to others.

Research limitations – Larger studies are needed to corroborate the findings of this initial study, particularly in some regional categories. The open-ended question format required some subjective interpretation by the researchers; future surveys utilizing an objective answer format would be recommended.

Practical implications – The amount of consensus indicates that if entrepreneurs, academics, and others collaborated and pooled their knowledge and resources, some of the critical barriers to success could be overcome. The field could benefit by future research focusing on identifying specific collaboration strategies among regions or countries leading to the growth of entrepreneurial ventures and economic development.

Originality/value – Surveying experts regarding the facilitators and impediments to entrepreneurship (both regionally and globally) will help to bridge the gulf between theory and practical solutions to drive economic development.

Keywords Entrepreneurship, Entrepreneurship education, Global entrepreneurship, Regional entrepreneurship, Facilitators, Impediments, Critical success factors, Economic development

Paper type Research paper

Introduction

The Organisation for Economic Co-operation and Development (OECD) cites the following as critical for economic development of a country: education, infrastructure, governance, and institutions (Lattimore and Love, 2009). If any of these elements are missing, the development process is slowed or even stops. The issue can be quite complex, especially for countries that experience challenges in the majority of these

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areas. Recently, entrepreneurship is becoming more and more visible as a legitimate means for job creation and economic recovery. People are also realizing that in response to an increasingly complex world, having an “entrepreneurial spirit” isn’t enough: a strong commitment to formalized, quality education is a critical factor for success for entrepreneurs as well as for countries at all stages of economic development.

Background on the field of entrepreneurship

Since entrepreneurship was first defined in the eighteenth century, it has developed greatly as a field of study, a career, and a tool for the economic development of nations (Bosma *et al.*, 2009). Joseph Schumpeter described entrepreneurship as radical, “creative destruction” back in the early 1940s, and since then, research has focused on the uniqueness of who entrepreneurs are, what they do, and how they do it. In addition, overlaying all of that is the context in which venturing is done. Research has shown, for example, that economic crises – an example of what Schindehutte *et al.* (2000) term “triggering events” – tend to correlate to an influx of new entrepreneurial ventures. From 2001 to 2003, the rate of “necessity early-stage entrepreneurs rose from 3.9 to 7.4%” (Bosma *et al.*, 2009); losing a job can indeed be a strong motivator for starting one’s own company. Moreover, small and medium-sized enterprises (SMEs) – like those often started under “trigger” conditions – are particularly critical for facilitating economic development.

It is now quite common to find the academic literature validating entrepreneurship as playing an important role in the economic development of a country or region. Although entrepreneurship alone cannot entirely account for the economic development of an area, it certainly facilitates it – starting locally (regionally) then having broader effects as enterprises mature.

Some of the ways entrepreneurship can affect regional economics are the following:

- employment and incomes growth;
- increases in tax revenue;
- improved service provision and local income retention; and
- demonstration and motivational effects (i.e. the inspiration of role models).

Clearly, these are positive elements from which economies at all stages could benefit. For a new enterprise, then, to form and have a chance of success, the following four elements are needed:

- (1) ideas;
- (2) capital;
- (3) entrepreneurship; and
- (4) infrastructure.

As governments all over the world create new methods of incentivizing businesses – whether through the availability of capital or through positive tax benefits and structures – entrepreneurial education needs to be accessible for those individuals interested in forging their own career paths. With the enormous economic potential connected with business venturing, it is no surprise that a broad spectrum of researchers over the past few decades have been driven to figure out whether entrepreneurship can in fact be taught, and if so, how.

The importance of education

The reoccurring question of whether entrepreneurship can even be taught should be addressed first. This continues to be a controversial issue, despite thought leaders such as Peter Drucker professing that it is a discipline like any other (Drucker, 1985) and Donald Kuratko emphasizing that the question is “obsolete” (Kuratko, 2005). Careful reading of the academic literature suggests that no one side is necessarily wrong, and this likely accounts for why the question continues to plague the field.

When looking at the situation broadly and from an economic development standpoint, the complexity surrounding entrepreneurship actually begs a different framework of questions culled from research analyzed by Gorman *et al.* (1997) and research done by Klein and Bullock (2006):

Does Entrepreneurship Education contribute to Entrepreneurship? ... and does that then contribute to Economic Development?

There are a vast number of academic discussions regarding the type of education available, for whom it is designed, and how it is designed; however, researchers' findings are often contradictory, which leaves educators perplexed as to how to move forward. What the literature does underscore is that it is important to consider that what is being taught is the right material and delivery method that will promote and foster a contribution to successful business venturing – the “entrepreneurship” that takes place. The educational component must have a forward trajectory that catapults entrepreneurs' efforts into successful ventures that then mature, contributing to economic growth and development.

According to the OECD, for the field of entrepreneurship, the educational system begins the “pipeline [...] [that then] runs through research to business” (Organisation for Economic Co-operation and Development, 2003, 2009). Many educational programs for entrepreneurship foster a wide range of skills including creative thinking, teamwork, risk management and financing. These educational moments can be taught formally or informally, in large group settings or individually, at the national or local levels.

Although the analysis by Gorman *et al.* (1997) of research published between 1985 and 1994 indicates the formalized teaching of entrepreneurship in lower grades often suppresses students more than encourages them, more current research discusses the value of starting to educate entrepreneurs as early as possible. Thus, many programs are being established that target children as young as primary school. Groups such as Junior Achievement (started in the USA but now operating worldwide) promote these interests globally. In a 2005 survey conducted by Junior Achievement Young Enterprise, 77 percent of (European) students said they would consider working for themselves in the future (EntreNews, 2005). This suggests too that the barriers perhaps exist more in what is taught and how than just the fact that it is taught at all.

Although many think of the USA or other Western countries when they think of entrepreneurship, education and new venture formations by entrepreneurs now more than ever are found globally – and often in developing countries. In August 2009, JA Worldwide® announced that a team of students from Russia was that year's winner of the HP Global Business Challenge, “a worldwide competition designed to increase students' business knowledge and skills” (Junior Achievement, 2009). The competition was fierce, with 300 teams competing from Argentina, Armenia, Azerbaijan, Bolivia, Brazil, Bulgaria, Canada, Cayman Islands, China, Costa Rica, Denmark, Ecuador,

Georgia, Guatemala, Hong Kong, India, Indonesia, Kazakhstan, Lithuania, Mexico, Moldova, Paraguay, Peru, Poland, Romania, Russia, Singapore, Turkmenistan and the USA. This competition is just one example of the interest that exists to spark both the entrepreneurial skills and spirit in the world's youth.

Because of entrepreneurship education's increasing importance, the Global Entrepreneurship Monitor (GEM) devoted its 2008 Special Topic to Entrepreneurship Education and Training. GEM researchers surveyed entrepreneurship experts in nearly 40 countries on the entrepreneurial climate in their respective countries. GEM's research found that the country averages at the different levels of economic development for "quality of entrepreneurship education and training" at school ranged from 1.7 to 2.2, and after school ranged from 2.5 to 3.4 (scale 1-5) (Bosma *et al.*, 2009). The low scores for all economic levels highlight the need for better early education as well as the value of having successful role models and mentors throughout life – from parents to teachers to other entrepreneurs.

Recognizing this, many groups worldwide have instituted peer-review processes for addressing various social and economic issues. Many of these are managed at the governmental level, to help drive change from the top, down (national to local). Two examples of these groups are the OECD and New Partnership for Africa's Development (NEPAD; see www.nepad.org).

The education systems within countries are also becoming more active in creating the means for students to study the field of entrepreneurship. In September, the *Princeton Review* and *Entrepreneur* magazine released results from their seventh annual survey of top college and graduate school entrepreneurship programs. Although a relatively new survey, it reflects the importance of both what schools feel is important to teach and what students are seeking in their potential programs.

What is even more poignant is that this year, the survey was designed with a companion piece that highlighted the top schools that work to facilitate entrepreneurship in their communities as well. "We wanted to take [the rankings] a step further and identify schools fueling their local economies through innovation and job creation. The resulting piece demonstrates that now more than ever, small businesses are needed to help drive the U.S. economy, magnifying the importance of these programs' roles in helping entrepreneurs succeed", stated Amy Cosper, Vice President and Editor-in-Chief at *Entrepreneur* magazine (Babson College, 2009). Innovative activities like these are likely to help bridge the "gulf between economists' conceptions of entrepreneurship, as the driving force behind the market economy, and those practical manifestations of entrepreneurship studied in the classroom" (Klein and Bullock, p. 436).

Collaboration – either across programs, schools, or community businesses – can be an effective tool for teaching entrepreneurship in ways that the fast-changing hypercompetitive world needs. While this tactic has been active in the areas of tech transfer for some time, educating students to keep up with these trends must happen as well. Seeing the benefits of this, Georgia Tech's College of Management started an integrated learning approach that is pairing science and engineering PhD students with law and MBA students in a supplementary program for technology entrepreneurship (Thursby *et al.*, 2009).

Recent research further supports the belief that collaboration can have beneficial, positive effects on a society. Rocha and Miles (2009) studied collaborative business

communities of different types and concluded that these systems can be very helpful in furthering innovation in the marketplace, rather than the onus having to be on individual businesses. This indicates that SMEs would likely benefit the most by being able to pool their talent and resources to leverage them in the increasingly competitive marketplace.

Students' demand for entrepreneurship education can also have powerful effects on the system. In New Zealand, which is known for exporting large numbers of entrepreneurs, students at Lincoln University were surveyed on their feelings about entrepreneurship and education. Fifty percent of them, on average across gender and backgrounds, expressed the belief that entrepreneurs were "made" not "born" (Roudaki, 2009). As the researchers concluded, "University level education is likely to be a significant contributor to improve quality of graduates for life long" (Roudaki, 2009). Research done by Sexton and Upton (1987) suggests that to have the most success, educators should design entrepreneurial programs that target the specific needs of the entrepreneurial "type": "independent individuals who dislike restraint, restriction, and the routine. They are capable of original thought, especially under conditions of ambiguity and uncertainty. Many of them need to develop better communication skills and to become more aware of how others perceive their behavior" (p. 38).

In basic economic terms of creating supply to meet demand, the hope would be that more and more schools all over the world will hear this message. Baylor University (USA) has heard and created a new model for fostering entrepreneurial thinking and skills in students from all disciplines: the new Entrepreneurship Living-Learning Center is student housing established specifically for those who want to layer in entrepreneurial learning activities and resources to their standard major curriculum (see www.baylor.edu/entllc/). As others see this model and time produces data showing the resulting positive results, new creative offerings such as these are sure to follow in academia.

Methodology

In conjunction with the Global Agenda Council on Promoting Entrepreneurship of the World Economic Forum (WEF), a small working group from Thunderbird School of Global Management (Arizona, USA) set out to determine if the topic of entrepreneurial education was considered by various groups as either facilitators or impediments to success.

The group created an electronic survey of nine questions – six free-type questions regarding the field of entrepreneurship and three questions to collect personal/professional/demographic information. The survey was sent to 145 individuals globally and with a follow-up survey sent out twice to non-respondents during the spring and early summer of 2009. The original list was compiled through the personal and professional contact lists of two of the co-authors and the GAC. A small additional subset list was compiled through recommendations from survey participants themselves.

Survey Monkey was the electronic collection agent. Countries were categorized into one of the following regions:

- North America;
- South America;

- Europe;
- Middle East/Africa; and
- Asia.

For the purpose of this analysis, Turkey was included in the Middle East/Africa region. While the country could arguably have been included in Europe, because of its history and its controversial bid for EU membership, this option was not implemented. A regional breakdown of responses is indicated in Table I.

Survey respondents included:

- Didem Altop, Turkey;
- Baoshan Ge, China;
- Gábor Baranyai, Hungary;
- Kailas K. Bhattbhatt, Tanzania;
- Niels Bosma, The Netherlands;
- Ziya Boyacigiller, Turkey;
- Simon Bridge, UK;
- Silvia Torres Carbonell, Argentina;
- Alicia Coduras (Martinez), Spain;
- Jeff Cornwall, USA;
- Kathleen Eisenhardt, USA;
- Fernando Fabre, Mexico;
- Connie Marie Gaglio, USA;
- Dietmar Grichnik, Germany;
- Donny Huang, China;
- Raj Kapoor, India;
- Donna Kelley, USA;
- Jiro Kokuryo, Japan;
- Timothy Kriewall, USA;

North America	South America	Europe	Middle East/Africa	Asia
USA ^a	Brazil ^a	UK ^b	UAE ^a	India ^a
Canada ^a	Argentina ^a	Spain ^b	Tanzania ^a	China ^a
Mexico ^a		Croatia ^d	Turkey ^d	Japan ^a
		Hungary ^c		
		Austria ^b		
		Germany ^b		
		Poland ^c		
		Switzerland ^a		
		The Netherlands ^b		

Notes: ^aNot in EU; ^bin EU since at least 1995; ^cEU 2004 countries; ^dEU candidates

Table I.
Regional breakdown

- Greg Leman, USA;
- Vinay Rao, India;
- Maija Renko, USA;
- Edward Roberts, USA;
- Manoj Sajnani, India;
- Dominika Salwa, Poland;
- Antoinette Schoar, USA;
- Joachim Schwass, Switzerland;
- Sachio Semmoto, Japan;
- Riddhesh Shah, India;
- Zeinab Karake Shalhoub, UAE;
- Slavica Singer, Croatia;
- Adolf Stepan, Austria;
- Sanjay Suchak, Tanzania;
- Don Tapscott, Canada;
- Paulo Veras, Brazil;
- Ann Winblad, USA; and
- Adrian Wooldridge, USA.

Findings

Knowing the importance of education to the entrepreneurial process, the hypothesis was that elements relating to education would likely surface as critical facilitating factors.

Analysis of the data revealed several positive factors facilitating entrepreneurship that were common among many respondents, regardless of regionalism. For the sake of clarification, these should be understood as positive when either the factors existed or that not having them would impede entrepreneurial and new venture formation progress.

Two traits that warranted the highest frequency of mention were having government support for programs, especially in terms of policies and incentives such as tax benefits (total 39.5 percent of respondents across all questions) and a having a positive image of entrepreneurship in the media, both for supporting its image and for sharing success stories (total 32.2 percent of respondents across all questions). These two traits scored in the top three for all four (three, for positive media image) questions asked (see Table II).

Other traits mentioned were the following (the total percentage for the trait across all four questions is shown in parentheses):

- Having a good infrastructure, including a strong network and market readiness/opportunities/demand (30.3 percent).
- Having good educational programs and training. This should start as early as possible, both in school and in the family (exposure to entrepreneurs and entrepreneurial ventures) (27.6 percent).
- Being risk tolerant (19.1 percent).

	Regional facilitators (Q1)		Regional impediments (Q2)		Global facilitators (Q3)		Global impediments (Q4)		Total number for trait	Total percentage for trait
	n	Percentage	n	Percentage	n	Percentage	n	Percentage		
Economic stability	15	39.5	3	7.9	7	18.4	2	5.3	27	17.8
Improved infrastructure	13	34.2	8	21.1	16	42.1	9	23.7	46	30.3
Entrepreneurship education and training	13	34.2	7	18.4	10	26.3	12	31.6	42	27.6
Government policies that support entrepreneurship	15	39.5	13	34.2	17	44.7	15	39.5	60	39.5
Self-motivated	7	18.4	2	5.3	6	15.8	10	26.3	25	16.4
Positive social image of entrepreneurship	18	47.4	12	31.6	9	23.7	10	26.3	49	32.2
Role models	10	26.3	5	13.2	5	13.2	3	7.9	23	15.1
Strong entrepreneurship network	10	26.3	5	13.2	5	13.2	3	7.9	23	15.1
Access to finance	10	26.3	2	5.3	7	18.4	3	7.9	22	14.5
Risk tolerance	3	7.9	14	36.8	3	7.9	9	23.7	29	19.1
Ethics/transparency	0	0.0	4	10.5	2	5.3	2	5.3	8	5.3

Notes: The top three responses of each trait for each question and for total across all questions are italicised. The two traits most frequently mentioned (government policies high in all four questions and social image of entrepreneurship high in three of four) are italicised

Table II.

- Having good economic stability (17.8 percent).
- Being self-motivated. In other words, having that elusive “entrepreneurial spirit” (16.4 percent).
- Having role models and a strong entrepreneurial network. This was mentioned for various reasons, including to have these as supplements to formal education, increasing the network of entrepreneurs, and [presumably] helping to aid some of the limitations in network resources (exit strategy planning, logistical problems, etc.) (separate categories, 15.1 percent each).
- Having access to finance (14.5 percent).
- Having good ethics and transparency in business operations (5.3 percent).

Separate from frequency of mention, responses to the survey also expressed factors that served as impediments to regional entrepreneurship and their reasons:

- Fear of failure. This fear seems to be for two main reasons: loss of savings or income and/or the cultural or social stigma associated with failure.
- Lack of government support for programs. This included policies, funding, accessibility and incentives.
- Insufficient education and training. This was reported as the insufficiency of comprehensive business training (all disciplines versus specialties) and the lack of role models to supplement the formal educational system and provide networking and resources.

There was one overarching comment that was specifically isolated from the analysis in order not to skew the data away from the general progression of the field of entrepreneurship: the current global economic crisis. In mentioning this as a facilitator, respondents were most probably reflecting the number of people entering the field as an alternative to a career/job that did not work out. Interestingly, this item came up as an impediment as well, because of the funding limitations for entrepreneurs the crisis has created.

When asked to think about the topic specifically from a global perspective, several respondents (from different regions) remarked on the need for a certain mindset disposed toward globalization and the unification of efforts, as well as having the infrastructure necessary to accomplish this. EU membership, the G20, trade agreements, and Internet (for ease in access to markets) were all cited as specific examples of positive facilitators. Another response highlighted the need for institutional reform, particularly in the realms of taxation and labor market legislation. The premise stated by one survey respondent was that the “stable and transparent framework” created would be set “to promote productive newness, whatever specific form that may take in an unpredictable future”.

As regards impediments to entrepreneurship efforts on a global scale, some common responses were:

- having a nationalistic mindset;
- a lack of government support for doing business abroad; and
- corruption/transparency issues.

It is worth noting that the fear of failure (not surprisingly) resurfaces in this area, for all the same reasons cited at the regional level.

Responses frequently mentioned were broken into three categories in order to more clearly assess any regional or job functional differences. The three categories are listed with examples of what is included in each:

- economic – economic stability, improved infrastructure, government policies that support entrepreneurship, and access to finance;
- social – entrepreneurship education and training, positive social image of entrepreneurship, and having an entrepreneurial network; and
- personal – self-motivated, risk-tolerant.

Some highlights from this analysis are indicated in Tables III-VI (response categories are not mutually exclusive) and are discussed below.

Regions that cited economic facilitators most were South America (100 percent), Asia (87.5 percent), and North America (76.9 percent). Those that cited social facilitators were South America (100 percent), North America (92.3 percent), and Europe (88.9 percent). Regions that cited personal facilitators were Asia (62.5 percent), South America (50.0 percent), and North America (46.2 percent).

To the same question, those who identified themselves as entrepreneurs responded to regional facilitators in the following manner:

- economic (77.8 percent);
- personal (66.7 percent); and
- social (33.3 percent).

Those who identified as funding sources for entrepreneurs cited economic and social factors highest (100 percent), followed by personal at 50.0 percent (see Table III).

	E	S	P
<i>Percentage of respondents per category, by region</i>			
All respondents	71.7	76.3	44.7
Asia	87.5	50.0	62.5
Europe	55.6	88.9	44.4
Middle East/Africa	60.0	60.0	20.0
North America	76.9	92.3	46.2
South America	100.0	100.0	50.0
<i>Percentage of respondents per category, by job function</i>			
All respondents	71.7	76.3	44.7
Academic	65.0	90.0	35.0
Entrepreneur	77.8	33.3	66.7
Funding source for entrepreneurs	100.0	100.0	50.0
Government, inter-government, or NGO	100.0	66.7	0.0
Institution working with entrepreneurs	66.7	100.0	66.7

Notes: E, economic stability, improved infrastructure, government policies that support entrepreneurship, access to finance; S, entrepreneurship education and training, positive social image of entrepreneurship, strong entrepreneurship network; P, self-motivated, risk tolerant

Table III.
Regional facilitators of entrepreneurship

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	E	S	P
<i>Percentage of respondents per category, by region</i>			
All respondents	76.3	55.3	55.3
Asia	75.0	50.0	75.0
Europe	55.6	77.8	55.6
Middle East/Africa	100.0	80.0	60.0
North America	84.6	38.5	46.2
South America	100.0	50.0	50.0
<i>Percentage of respondents per category, by job function</i>			
All respondents	76.3	55.3	55.3
Academic	70.0	65.0	55.0
Entrepreneur	77.8	44.4	55.6
Funding source for entrepreneurs	50.0	0.0	100.0
Government, inter-government, or NGO	100.0	66.7	33.3
Institution working with entrepreneurs	100.0	66.7	66.7

Table IV.
Regional impediments to entrepreneurship

Notes: E, economic stability, improved infrastructure, government policies that support entrepreneurship, access to finance; S, entrepreneurship education and training, positive social image of entrepreneurship, strong entrepreneurship network; P, self-motivated, risk tolerant

	E	S	P
<i>Percentage of respondents per category, by region</i>			
All respondents	76.3	63.2	42.1
Asia	75.0	50.0	37.5
Europe	55.6	66.7	33.3
Middle East/Africa	60.0	60.0	60.0
North America	92.3	76.9	38.5
South America	100.0	50.0	50.0
<i>Percentage of respondents per category, by job function</i>			
All respondents	76.3	63.2	42.1
Academic	75.0	70.0	30.0
Entrepreneur	55.6	55.6	55.6
Funding source for entrepreneurs	100.0	50.0	50.0
Government, inter-government, or NGO	100.0	33.3	66.7
Institution working with entrepreneurs	100.0	100.0	66.7

Table V.
Global facilitators of entrepreneurship

Notes: E, economic stability, improved infrastructure, government policies that support entrepreneurship, access to finance; S, entrepreneurship education and training, positive social image of entrepreneurship, strong entrepreneurship network; P, self-motivated, risk tolerant

Another factor for regional success is the collaboration among universities, businesses, non-profits, etc., particularly in the transference of R&D between universities and businesses. The USA was noted as being relatively strong in this area compared to other regions; however, the issue of managing property rights was still a challenge for the USA, according to the respondents.

When asked to assess impediments to regional entrepreneurship, 100 percent of respondents from South America and Middle East/Africa cited economic impediments,

	E	S	P	Education in the entrepreneurial process
<i>Percentage of respondents per category, by region</i>				
All respondents	78.9	60.5	52.6	
Asia	75.0	50.0	25.0	
Europe	66.7	66.7	44.4	
Middle East/Africa	60.0	80.0	60.0	
North America	92.3	69.2	76.9	
South America	100.0	0.0	50.0	
<i>Percentage of respondents per category, by job function</i>				
All respondents	78.9	60.5	52.6	
Academic	80.0	80.0	45.0	
Entrepreneur	77.8	33.3	66.7	
Funding source for entrepreneurs	50.0	0.0	50.0	
Government, inter-government, or NGO	66.7	66.7	0.0	
Institution working with entrepreneurs	100.0	66.7	100.0	

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Notes: E, economic stability, improved infrastructure, government policies that support entrepreneurship, access to finance; S, entrepreneurship education and training, positive social image of entrepreneurship, strong entrepreneurship network; P, self-motivated, risk tolerant

Table VI.
Global impediments to entrepreneurship

followed by North America at 84.6 percent. Responses to social and personal factors were pretty evenly cited across all regional breakdowns (see Table IV).

As far as job functions were concerned, entrepreneurs pretty evenly cited all three categories as impediments (E, 77.8 percent; S, 44.4 percent; P, 55.6 percent). Those who were funding sources for these entrepreneurs cited personal factors as being the biggest impediments (100 percent). Half of the respondents mentioned economic factors and none of them mentioned social factors to be impediments.

On a global scale, results were similar (see Tables V and VI). Perhaps most interestingly, Entrepreneurs equally cited economic, social and personal factors as facilitators (55.6 percent); yet as an impediment, social ranked significantly lower (33.3 percent). This suggests that factors such as education are considered to benefit entrepreneurship more than a lack of it, compared to other factors, would impede success.

Respondents provided a long list of programs, policies or organizations they considered successful in promoting entrepreneurship (anywhere in the world). The most commonly cited examples were the following:

- Endeavor;
- the Kauffman Foundation programs;
- Global Entrepreneurship Week (GEW); and
- Junior Achievement.

Limitations

While some regions were pretty well represented in number of respondents, one limitation of the study was the small numbers in others, limiting the researchers' ability to make strong generalizations based on the current data and skewing the percentages in certain categories higher than they might otherwise be. Also, in some

regions (e.g. Europe, Middle East/Africa), historical factors (political, economic, etc.) account for differences that make regional generalizing difficult. Another limitation of the study was the free-text data collection format. Although this allowed for ideas the authors may not have expected, it required a certain amount of subjective analysis that may or may not be completely in line with what the respondent intended.

Conclusions

The findings revealed more commonalities than differences across regional “borders”. The risk-taking, “entrepreneurial spirit” of those working in the USA is seen by both US respondents and others as a critical element of entrepreneurial success. Furthermore, other elements must co-exist with the right “spirit”, such as infrastructure and access to education and networks, government attitude toward transparent business and support for these efforts locally and globally, and access to capital. As the body of academic research suggests, creating successful business ventures that can then mature and buoy economic growth is important; however, it is even more difficult in countries and regions that have additional challenges such as corruption and corporate tax barriers. In these situations, creating the right educational programs that can move the entrepreneur forward would be a strong facilitator to success.

The fact that access to entrepreneurial education and training did not resonate as strongly as we expected does not diminish its importance, particularly since it scored highly relative to other factors. The results indicate both the large combination of factors that are important in entrepreneurial work as well as the weight of some of the factors that are less under the control of individual entrepreneurs—or are perceived by them to be so. For example, issues relating to government support of entrepreneurship through tax and policy infrastructure or those relating to the social perception of entrepreneurs may be harder for individuals to control, and thus emerged more frequently in the survey.

Implications and future research

Although one might have expected to find more differences among regions as regards what facilitates or impedes entrepreneurship – both within regions and globally – the fact that many similarities exist bode well for the future of global entrepreneurship: similar problems could result in finding similarly useful solutions. Perhaps if entrepreneurs, academics, and others collaborated and pooled their knowledge and resources, some of the critical barriers to success could be overcome in many of these regions.

With everyone feeling the effects of the current economic crisis and many now having a certain openness (or compulsion) to try new things, the timing is appropriate to address some of the more difficult challenges, such as working with governments and educational institutions worldwide to foster support and collaboration in the fields of business, entrepreneurship, new venture formation, and entrepreneurial education.

The field could benefit by future research expanding this study in both size and scale; furthermore, teasing out the relationship between infrastructure and education could be pivotal for future public and academic policy efforts. Focusing on identifying specific collaboration strategies among regions or countries that lead to the growth of entrepreneurial ventures and economic development would be another critical contribution to the field.

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