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Entrepreneurial Orientation among the Youth of India: The Impact of Culture, Education and Environment

NANCY M. LEVENBURG AND THOMAS V. SCHWARZ

Expanding the level of entrepreneurial activity within all nations is an increasingly important political and economic goal, especially for developing countries. Literature suggests that culture, education and environment play key roles, yet these attributes vary greatly across nations. This study explores the level of interest in entrepreneurship among what may be India's next generation of entrepreneurs, namely undergraduate business students, and draws comparisons with students enrolled in the US. Despite a combination of social structures and cultural values within India that historically constrained entrepreneurship, a number of efforts in recent years seem to have significantly shifted the national mindset regarding entrepreneurship, particularly among India's youth who were found to demonstrate a significantly higher level of interest in starting new ventures than their US counterparts.

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A growing worldwide interest in entrepreneurship is shaping the discussion of academics and politicians on a regular basis. Rarely does a head of state discuss economic conditions without reference to entrepreneurs and their importance in creating a more prosperous future for its citizenry. How to further entrepreneurial activity within the state is a high priority as rapidly changing economic and political landscapes pressure leaders to keep pace. Whether there are universal solutions or prescriptions is a matter of debate, although a growing body of research is providing some clues.

Major initiatives have been undertaken to measure and assess the extent, type and health of entrepreneurship worldwide. One of the most significant annual studies beginning in 1999, the Global Entrepreneurship Monitor (GEM), has noted wide levels of variation in entrepreneurial activity throughout the nations of the world. While the average percentage of the world's population involved in entrepreneurial activity was near 9 per cent for the period 2001–03, the range of activity in the forty countries analysed spanned from a low of 2 per cent to a high of 29 per cent. The cause(s) of such variation is an evolving dialogue with the role of differing cultures, education and the environment.

With regard to culture, there exists a range of perspective as to its impact on entrepreneurial orientation. The GEM suggests a rather powerful role as noted in this quote: 'A cultural context that is positive toward entrepreneurship—reflected in social acceptance of entrepreneurial careers, respect for new business success, and positive media coverage—tends to increase participation in start-ups' (GEM, 2003, p. iv). Similarly, other researchers have demonstrated a positive association between entrepreneurial behaviour and cultural values such as individualism, achievement, independence and masculinity. From somewhat a different perspective, Morris and Schindeutte (2005) examined two provocative questions related to the role of culture. First, if entrepreneurship is viewed as a universal phenomenon, does it follow that culture becomes largely an irrelevant factor? Second, does the entrepreneurial ethos of a community ebb and flow with its environment; that is, its political and economic conditions? That is to say, will countries vary in their entrepreneurial activities over time in relation to political and economic shocks? The conclusion of Morris and Schindeutte (2005) suggest that the answer is yes; that entrepreneurial attitudes adapt rapidly to economic and political circumstances. Thus, they believe that '... culture matters, but it is less a precedent to entrepreneurship and is instead a complex and dynamically interacting factor' (p. 472).

In addition to the impact of culture and environmental factors, education, mentoring and other entrepreneurial training are perceived to influence entrepreneurial activity, though again, the size of impact is debated. For some, the question of whether entrepreneurship can be taught at all, still looms high. Nevertheless, substantial investments have been made by many nations to educate, train and facilitate the development

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of entrepreneurs. Globally, there have been ‘... vigorous and innovative efforts in entrepreneurship education and training for entrepreneurs, those who provide entrepreneurial resources and services, and policymakers charged with the expansion of economies worldwide’ (Reynolds et al., 2004, p. 238). This makes sense since entrepreneurship has long been recognised as a leading driver of development in local, regional and national economies (Schumpeter, 1934).

The Case of India

How have culture, education, and the economic and political environments shaped India’s entrepreneurial destiny? Where does its future lie? Recently, several researchers have suggested that in India a combination of factors—including the caste system (Dana, 2000; Handy et al., 2002; Shivani et al., 2006), British occupation (Dana, 2000; Shivani et al., 2006), religious and cultural values (Dana, 2000; Handy et al., 2002; Shivani et al., 2006) and governmental regulations (Dana, 2000; Shivani et al., 2006)—have conspired against a spirit of entrepreneurialism in the past (i.e., prior to the liberalisation of the Indian economy in 1991). Dana contends, for example, that whereas Anglo culture tends to encourage the ‘drive to achieve’, many Indians believe that passivity and contentment with the status quo is ‘more healthy for the inner soul than striving to improve one’s situation. They believe that peace of mind can be achieved from spiritual calm rather than from materialism’ (2000, p. 87).

Institutionally, the time required to start a business in India averages eighty-eight days (UNDP, 2007)—over 60 per cent greater than the world average of fifty-four days and over 1,500 per cent greater than the US average of five days (World Development Indicators, 2006). This is commonly attributed to bureaucratic hurdles since approvals are often needed from several government agencies for starting a new venture. Corruption in the public sphere is also perceived to be rife (House et al., 2004). By comparison, in the US, owning a small business is part of the American Dream—like baseball and apple pie. Some might attribute this to the Anglo culture’s strong performance orientation and high level of individualism (Ashkanasy et al., 2002; House et al., 2004). The GLOBE study (House et al., 2004) found that the Anglo ideal is to break tradition and order, seek constant change and innovation and to value hard work. Further, House et al.’s (2004) GLOBE profile of the Anglo culture indicates

that launching a new business can occur quite easily and rapidly, without having to manoeuvre through layers of bureaucracy and formal approval processes. Indeed the mere existence of such US agencies and organisations such as: (a) the Small Business Administration (SBA), with Small Business Development Centers (SBDCs) spread throughout the US, and special offices and assistance services for minority groups, veterans, and so on; (b) local and national chambers of commerce and (c) a myriad of industry and trade associations indicates that the US business environment is highly supportive of new business ventures.

On the education front, colleges and universities in both India and the US have established education and training programmes to foster entrepreneurship, centres for entrepreneurial studies and even business incubators, such as the Society for Innovation & Entrepreneurship (SINE) at the Indian Institute of Technology in Mumbai, and the Life Sciences Business Development Center and Innovation Center on the campus of the Medical College of Georgia (MCG) in Augusta, Georgia. Yet, have such initiatives altered how business students perceive entrepreneurship as a career? Whether in the US or in India, some students will enrol who prefer wage-employment and some who prefer self-employment (Wani et al., 2003). Consequently, if a goal within business schools is to design courses and programmes for both sets of students, as well as courses in which both sets of students co-exist, it is important to understand similarities and differences between entrepreneurially-oriented students and their non-entrepreneurial classmates. While this topic is not unique—indeed, identifying characteristics of aspiring entrepreneurs and the variables that influence entrepreneurial intent have been studied by numerous researchers—few other studies have examined these characteristics among business students within either: (a) a non-Anglo country or (b) at a cross-continental level and (c) none within South Asia. To quote, as recently noted by Blanchflower et al., ‘few researchers have yet attempted to measure entrepreneurial spirit across countries’ (as cited in Beugelsdijk and Noorderhaven, 2005, p. 159).

The aforementioned literature and analysis do not allow a clear determination of how the three primary forces impacting entrepreneurial orientation—culture, education and environment—have interacted to shape the current entrepreneurial orientation of India’s collegiate youth. As noted by Dana (2000, p. 86), ‘This combination of social structure

and cultural values has constrained entrepreneurship in India. However, in recent years, there have been a number of efforts to shift the national mindset regarding entrepreneurship, particularly among India's youth, in whom it is hoped an entrepreneurial personality can be developed'. Despite impediments, levels of entrepreneurship as high as 17.9 per cent have recently been reported in India (Manimala et al., 2002), and it has also been found that younger people are more likely to be engaged in entrepreneurial activity (Manimala et al., 2001). Venkatachalam and Waqif (2005) attribute this growing interest in entrepreneurship to rising unemployment rates due to worker displacement associated with the introduction of new technologies, high population growth rate, growth rate in the labour force and the declining mortality rate.

In order to examine and measure these issues, we compare India with the US situation where entrepreneurship has been on the 'upward bound' within American colleges and universities for two decades. US students are increasingly choosing to start their own businesses both before and during college, as well as postgraduation. Some have suggested that the appeal of self-employment and launching a new business has resulted from continued uncertainty about the US economy, corporate and government downsizing, and a declining number of corporate recruiters on college campuses (Moore, 2002). Moreover, members of Generation X (those born between 1965 and 1990) do not perceive launching a business as a risky career path. Described as 'the most entrepreneurial generation in history' (Zimmerer & Scarborough, 2002, p. 15), they account for approximately 70 per cent of new business start-ups (Bagby, 1998; Phillips, 1999).

We expect, given differences in culture, socio/economic factors, resources and other contextual variables, that there will be differences between US and Indian students' level of interest in entrepreneurship and future self-employment. We also anticipate that there will be differences between those students who are entrepreneurially-oriented and those who prefer wage-employment, whether they reside in India or in the US. But in what direction will the differences lie? Have the recent efforts in India succeeded in changing the 'national mindset' towards increasing levels of entrepreneurship? Has the economic environmental engine of India fostered a strong entrepreneurial orientation as suggested

by Morris and Schindeutte (2005)? Or, does the heritage of certain religious and cultural dimensions continue to limit entrepreneurial advancement as in the past, as suggested by Handy et al. (2002) and Shivani et al. (2006)? The purpose of this article is to provide an answer to these questions through the examination of the relative situations in India and the US.

Objectives

Students' Interest in Entrepreneurship

Early research on business students' (primarily in the US and the UK) interest in entrepreneurship and entrepreneurship courses focussed on identifying characteristics of entrepreneurs and variables that influence entrepreneurial intent (e.g., Ede et al., 1998; Hatten & Ruhland, 1995; Hills & Barnaby, 1977; Hills & Welsch, 1986; Hutt & Van Hook, 1986; Levenburg et al., 2006; Sexton & Bowman, 1983), as shown in Table 1. Overall, the review of the literature suggests that there has been steady interest over the years in seeking to understand students' interest in entrepreneurship, at least among business students in the US and other Anglo nations.

Characteristics of Entrepreneurs

Amidst debate about whether entrepreneurs are born or 'made', the literature, both the academic and popular press, abounds with reputed characteristics, behaviours and, more recently, 'perceptual variables' (Arenius and Minniti, 2005) associated with entrepreneurs. Most scholars agree that enduring traits and other individual differences are key, since the entrepreneur is central to the formation and launch of a new venture.

One characteristic of entrepreneurs that is nearly always cited in the literature is risk propensity—the tendency of an individual to take or avoid risk (e.g., Arenius and Minniti, 2005; Engle et al., 1997; Smith-Hunter et al., 2003; Stewart and Roth, 2004). Some suggest that this is inherent in the definition of entrepreneurship, since starting a new venture is a demonstrably risky undertaking (Aldrich and Martinez, 2001). According to Stewart and Roth's (2004) meta-analysis, entrepreneurs have a greater propensity for risk than non-entrepreneurs. Some studies suggest that

TABLE 1
Summary of the Literature on Students' Interest in Entrepreneurship: 1977–2006

<i>Sample</i>	<i>Authors</i>
Business and Engineering Students	
US business students	Hills & Barnaby, 1977 Sexton & Bowman, 1983 Hills & Welsch, 1986 Hutt & Van Hook, 1986 Hatten & Ruhland, 1995 Ede et al., 1998 Sagie & Elizur, 1999 Lissy, 2000 Krueger et al., 2000 DeMartino & Barbato, 2002 Henderson & Robertson, 1999
UK and Scotland business students, and bank trainees	
US, Canada, Ireland, Germany, Belgium, China, Singapore, Croatia and Slovenia business, economics and engineering students	
UK business students	Thomas and Mueller, 2000
US engineering students	Galloway & Brown, 2002 Luthje & Franke, 2003
Other Disciplines	
US undergraduate women	Brannen, 1979
US, UK and Ireland college/university students	Scott & Twomey, 1988
US college/university students	Karr, 1988; Levenburg et al., 2006
Ireland: 16- to 18-year-olds	Hart & Harrison, 1992
UK entrepreneurs in SMEs	Davies et al., 2002
Canadian artists (anecdotal)	Bolan, 2002

this may be related to a higher level of salivary testosterone, which was found to be positively associated with entrepreneurial behaviour.

In addition to risk-taking, entrepreneurs have been characterised as creative thinkers (Engle et al., 1997) and as people who also demonstrate creativity in problem-solving and overcoming obstacles (Morris et al., 1993; Smith-Hunter et al., 2003). They have a high need for achievement (Collins et al., 2004; Smith-Hunter et al., 2003), as well as confidence in their own skills and abilities (Arenius and Minniti, 2005). This may result from knowing other entrepreneurs or having encouraging family members who serve as role models (*ibid.*); various studies across cultures have demonstrated that a supportive extended family has a positive effect on entrepreneurial activities (Ramu, 1973).

Entrepreneurs also have an internal locus of control (Smith-Hunter et al., 2003), which Rotter defined as the amount of personal responsibility they perceive and accept for their behaviour and its consequences (as cited in Engle et al., 1997, p. 47). Individuals with an internal locus of control believe they can personally control events and consequences in their lives, while the opposite is true for those with an external locus of control. Smith-Hunter et al. (2003) suggests that in cultures with strong belief systems in self-determination (i.e., internal locus of control), there tends to be higher rates of entrepreneurial activity. Similarly, House et al. (2004) report scores on assertiveness—a variable that is related to locus of control—of 4.55 and 3.73 for the US and India, respectively (as shown in Table 2), which would also lead us to expect differences in characteristics/perceptual variables between the two countries. Additionally, the table highlights strong differences in ‘In-Group Collectivism’, which reflects the degree to which individuals express pride, loyalty and cohesiveness in their organisations or families. The much lower rating of the US suggests a more individualistic society. On the contrary, the countries are quite similar in uncertainty avoidance, institutional collectivism and future orientation.

While some prior researchers have suggested that entrepreneurs across various cultures are more similar to each other than to their non-entrepreneurial counterparts, more recent research suggests that some traits may be universal yet others may not be. Thomas and Mueller (2000), for example, found that while an innovative orientation appears to be a

TABLE 2
Cultural Constructs for US and India

<i>Construct</i>	<i>Practice</i>		
	<i>India</i>	<i>US</i>	<i>Scale: 1 = Lowest to 7 = Highest Difference</i>
<i>Power Distance</i> : The degree to which members of a collective expect power to be distributed equally.	5.47	4.88	0.59
<i>Uncertainty Avoidance</i> : The extent to which a society, organization, or group relies on social norms, rules, and procedures to alleviate unpredictability of future events.	4.15	4.15	0
<i>Humane Orientation</i> : The degree to which a collective encourages and rewards individuals for being fair, altruistic, generous, caring, and kind to others.	4.57	4.17	0.40
<i>Collectivism I (Institutional Collectivism)</i> : The degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action.	4.38	4.20	0.18
<i>Collectivism II (In-Group Collectivism)</i> : The degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families.	5.92	4.25	1.67
<i>Assertiveness</i> : The degree to which individuals are assertive, confrontational, and aggressive in their relationships with others.	3.73	4.55	(0.82)
<i>Gender Egalitarianism</i> : The degree to which a collective minimizes gender inequality.	2.90	3.34	(0.44)
<i>Future Orientation</i> : The extent to which individuals engage in future-oriented behaviors such as delaying gratification, planning, and investing in the future.	4.19	4.15	0.04
<i>Performance Orientation</i> : The degree to which a collective encourages and rewards group members for performance improvement and excellence.	4.25	4.49	(0.24)

Source: House et al. (2004).

more universal trait, the presence of other traits (e.g., internal locus of control, risk-taking propensity) varies according to the cultural distance from the US.

Entrepreneurial Orientation

Despite the growing trend, not all students are entrepreneurially oriented, nor should we necessarily desire them to be. Those who are, however, show high levels of interest in new venture creation and are highly achievement motivated. Henderson and Robertson (2000) collected data from 'young adults' aged nineteen to twenty-five years who were studying entrepreneurship in Scotland, business students in England, and new employees at a major UK bank, and found that 67 per cent of those studying entrepreneurship expressed a desire for self-employment, compared to 5 per cent among the rest. In 1999, Sagie and Elizur reported the findings from a study conducted among US students of small business and students of business and economics. The purpose of their study was to measure the achievement motive among students regarded as having high and low entrepreneurial orientations, respectively. Differences were found among four achievement components tested, with students of small business tending to score higher than their business and economics counterparts. Finally, although it was not focused on students, Collins et al.'s (2004) meta-analysis of achievement motivation and entrepreneurship among forty-one students found that individuals who pursued entrepreneurial careers scored significantly higher on achievement motivation than individuals who pursued other types of careers. Moreover, these studies suggest that there are differences between those students who are entrepreneurial and those who are not, although testing among non-Anglo students has been limited to date. Beugelsdijk and Noorderhaven (2005) note, however, that 'entrepreneurship' is itself an ill-defined concept that can be measured in two ways: (i) self-employment and (ii) as a nascent, start-up activity.

As reported in the 2003 GEM study, India scored 17.9 on the Total Entrepreneurial Activity (TEA) index, as compared to the US score of 11.3. The TEA index reflects the prevalence of start-up efforts among the population (GEM, 2003, p. 11.) Venkatachalam and Waqif (2005) attribute the difference in TEA indices to the nations' levels of economic

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development; 'It can be fairly said that in developing countries, individuals have a more entrepreneurial spirit compared to developed countries' (Venkatachalam and Waqif, 2005, p. 62).

Perceptions of Entrepreneurial Opportunities

According to Drucker (1985), entrepreneurs are able to focus on opportunities rather than problems. The act of visioning and launching a new business necessarily involves identifying and pursuing an opportunity (Gartner, 1994; Stewart et al., 1996). In fact, according to Kirzner, 'an increasing number of scholars agree that opportunity perception is the most distinctive and fundamental characteristic of entrepreneurial behaviour' (as cited in Arenius and Minniti, 2005, p. 235).

However, as suggested over seventy years ago by Weber (1930), there may be differences in entrepreneurial activity that can be explained by differences in terms of cultural variables. As is illustrated in Table 3, there are a number of key differences between the economic and business climates of the US and India. Overall, the UNDP, the United Nations' global development network, ranks the US as eighth in the world according to its Human Development Index (HDI) and India as 126th.¹ This would lead us to expect that there may be differences in how opportunities may be perceived among those residing in the two nations.

TABLE 3
Economic and Technological Profile for US and India: Selected Statistics

	<i>US</i>	<i>India</i>
GDP (US\$ billion), 2004	11,711.8	691.2
GDP per capita (US\$), 2004	39,676	3,139
Total population ('000), 2004	295,410	1,087,124
Telephone mainlines (per 1,000 people), 2004	606	41
Internet users (per 1,000 people), 2003	630	32
Patents granted to residents (per million people), 2004	281	1
High-technology exports (% of manufactured exports), 2004	32	5
Public expenditure on education (% of GDP), 2002–04	5.9	3.3
Human Development Index (HDI)	0.948	0.611

Source: UNDP (2007).

Method

A questionnaire was developed to explore both Indian and US undergraduate students' interest in starting their own businesses. The questionnaire was guided by three important research questions:

1. To what extent do the youth (undergraduate business students) of India and the US have an interest in entrepreneurship?
2. To what extent do these students, both in India and the US, possess the characteristics that are commonly viewed as indicators of entrepreneurial intent?
3. What are the differences in No. 1 and No. 2 between those who are entrepreneurially-oriented students and those who are not?

The questionnaire contained seventeen statements designed to measure interest in entrepreneurship and characteristics of entrepreneurs, to which students responded using a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree); for example, 'I am a risk taker'. It also queried students regarding specific demographic descriptors, such as academic rank, gender and whether or not their family owned a business.

While the primary language at the south Indian institution where the questionnaire was administered was English, it was necessary to adapt/refine the questionnaire in a few minor ways for idiomatic reasons. While the 'heart and soul' of the questionnaire remained intact, a few minor terms required modification. For example, terms such as 'Freshmen' were modified to '1YR'. The questionnaire was pre-tested and improved before distribution.

Results

The US portion of the study was conducted using course management software (Blackboard) during the 2003 summer semester.² An e-mail was sent to all students (approximately 5,000) directing them to a site where they could complete the survey electronically, with an incentive offered for completing the survey. In total, 728 students completed the survey, representing a response rate of nearly 15 per cent. With respect to academic major and gender, the sample was judged as quite representative of the university's student population during the 'regular' academic

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year. The data was filtered to identify only business students, who numbered 142. In India, the questionnaire was administered only to business students, who numbered 94, using a convenience sample; the gender distribution was also judged to be representative of the college's student population.

Evidence of Interest in Entrepreneurship

Using a five-point Likert scale, all respondents were asked to indicate their level of agreement with two statements regarding a career in entrepreneurship: (i) 'I would like to work for myself' and (ii) 'I would like to start my own venture'. Combining 'Strongly Agree' and 'Somewhat Agree' responses, 69.7 per cent (99 of 142) of the US students indicated that they wanted to be self-employed, while slightly over half (53.5 per cent, or 76 of 142) expressed a desire to start their own new venture. Among Indian students, 64.9 per cent (61 of 94) indicated that they wanted to be self-employed and an even higher percentage (82 per cent, or 77 of 94) expressed a desire to start their own new venture, as shown in Table 4.

TABLE 4
Indian Business Students' Interest in Entrepreneurship

<i>Response</i>	<i>'I would Like to Work for Myself'</i>		<i>'I would Like to Start My Own Venture'</i>	
	<i>Frequency</i>	<i>Per cent</i>	<i>Frequency</i>	<i>Per cent</i>
Strongly disagree	5	5.3	7	7.4
Somewhat disagree	2	2.1	15	5.3
Neutral	10	10.6	21	22.3
Somewhat agree	31	33.0	21	22.3
Strongly agree	46	48.9	40	42.6
Total	94	100.0	94	100.0

Testing for significant differences between US and Indian students' level of interest in entrepreneurship indicates differences ≤ 0.01 , as shown in Table 5. The US-based statistics are higher than those reported among US students in nearly all prior studies (e.g., Karr, 1988; Scott & Twomey, 1988), as well as statistics reported by DeMartino and Barbato (2002) on the likelihood of MBA alumni of a top-tier US business school becoming entrepreneurs in the short term. Moreover, they provide a clear

TABLE 5
Comparison of US and Indian Business Students' Interest in Entrepreneurship

	<i>Location</i>	<i>N</i>	<i>Mean</i>	<i>Std. dev.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i>
I would like to work for myself	US	142	3.77	1.259	-2.620	234	.009
	India	94	4.18	1.067			
I would like to start my own venture	US	142	3.35	1.250	-3.142	234	.002
	India	94	3.87	1.249			

indication of overall interest in entrepreneurship among undergraduate students particularly those in India. Moreover, the means indicate an overall higher level of interest in entrepreneurship among Indian students, at least in this particular institution.

Further interest in entrepreneurship was demonstrated by two questions:

1. Have you ever designed or developed a new product or service?
2. Do you have any plans to start a business in your field of interest?
(India only)

Among the US students, 17.6 per cent (25 of 142) indicated that they had already designed or developed a new product or service, as compared with 36.6 per cent of Indian students (34 of 93). Chi-square testing revealed a significant difference at the 0.001 level ($\chi^2 = 10.736$, $df = 1$). Although the second question was posed only to Indian students, 53 of 93 students (57 per cent) indicated that they had plans to start a business.

Characteristics of Entrepreneurs

The survey contained six statements describing characteristics of entrepreneurs to which students responded using a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The six statements included:

1. I am a risk taker.
2. I have an idea for a new product or service.
3. I like to tinker with ideas for new products.
4. I like to dream about new services.
5. I have many ideas for possible new businesses/organizations.
6. I am on the alert for new venture ideas.

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As found in an unpublished study conducted by the authors, analysis of variance testing among US students for differences between students who intend to start a new venture and those who do not revealed significant differences at 0.001 or higher on all six aforementioned characteristics. The same tests were conducted among Indian students; significant differences were found at the 0.05 level or higher, as shown in Table 6.

TABLE 6
Indian Students' Entrepreneurial Characteristics by Entrepreneurial Intent^a
(*N* = 94, means shown)

<i>Statements</i>	<i>Intending Entrepreneurs</i>	<i>Non- Entrepreneurs</i>	<i>t</i>	<i>df</i>	<i>Sig.</i>
I am a risk taker	3.81	3.75	-0.198	69	.844
I have an idea for a new product or service	3.47	2.00	-3.841	68	.000
I like to tinker with ideas for new products	3.75	3.00	-2.222	67	.030
I like to dream about new services	4.20	3.33	-2.458	69	.016
I have many ideas for possible new businesses/organization	3.30	2.42	-2.327	68	.023
I am on the alert for new ideas	3.62	3.17	-1.222	68	.226

^a Entrepreneurial Intent is measured by summing 'Somewhat Agree' and 'Strongly Agree' (or 'Somewhat Disagree and Strongly Disagree') to the question, 'I would like to start my own venture'. Students who were neutral about starting a business were excluded from this analysis.

Next, the same six statements were used to test for differences between intending entrepreneur business students in the US and India. No significant differences were found at the 0.05 level on any of these items; the only statement approaching statistical significance was 'I like to dream about new services' at 0.089. These findings suggest, even at this initial and exploratory level, that characteristics/traits of entrepreneurially-oriented students may be similar, even across cultures.

Finally, students in both the US and India were asked the question, 'Does your family own a business?' Among US business students, 29 of 142 (20.4 per cent) reported a family business background, versus 31 of 94 (33 per cent) of Indian students. This difference was significant at $\chi = 4.703$, $df = 1$, $sig. = 0.030$. However, no significant difference was found in terms of family business ownership when the data was filtered to examine only intending entrepreneurs in both nations.

Perceptions of New Venture Opportunities

The questionnaire contained two statements designed to measure students' perceptions concerning new venture opportunities and the extent to which they believed they are encouraged to pursue new venture opportunities:

1. There are many opportunities for new businesses in my major field(s) of study.
2. At my institution, students are encouraged to pursue new ventures.

Using a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree) to respond, the survey results revealed no statistically significant differences among Indian students who were entrepreneurially-oriented and those who were not, with respect to either perceptions of new venture opportunities or encouragement provided by their institution.

On the other hand, we find highly significant differences (≤ 0.001) on both items between business students in the US and India, as shown in Table 7. The data was then filtered to include only those previously identified as entrepreneurially-oriented, with results that were significantly different at the 0.01 level. From this, we conclude that whether the student respondents see themselves are entrepreneurially-oriented or not, Indian students overall perceive far greater new venture opportunities than US students do.

TABLE 7
Perceptions of New Venture Opportunities among Business Students in US and India
(N = 236, means and standard deviations shown)

<i>Statements</i>	<i>US</i> <i>n = 142</i>	<i>India</i> <i>n = 94</i>	<i>t</i>	<i>df</i>	<i>Sig.</i>
There are many opportunities for new businesses in my major field(s) of study	3.11 <i>s = 1.261</i>	3.98 <i>s = 1.057</i>	-5.500	234	.000
At my institution, students are encouraged to pursue new ventures	3.20 <i>s = .919</i>	3.82 <i>s = 1.311</i>	-4.235	234	.000

Discussion

The findings of this study suggest that while a considerable percentage of US students aspire towards entrepreneurship, the percentage appears to be even higher in India. Because we were intrigued by these findings,

we engaged in subsequent face-to-face conversations with the Indian business students who had completed the questionnaire to learn more about their entrepreneurial goals. The types of businesses that they said they planned to launch, in the majority of cases, may be described as ‘opportunity-based entrepreneurship’ serving markets outside India—either export-oriented businesses (e.g., tea, furniture, leather products, essential oils), or high-tech businesses (e.g., computer products/accessories, Web design services) serving global clients. Their stated rationale was the comparative low value of the rupee relative to other currencies. Only a minority was interested in serving an indigenous market but with products, such as fast food. When asked what they felt might explain the higher interest in entrepreneurship among Indian business students as compared to their US counterparts, they cited three factors: (i) greater focus and creativity in developing new products, (ii) greater initiative and (iii) greater competition.

With regard to focus, they indicated that years and years of regimented study in school enabled them to be highly focused in their work. They attributed ‘greater initiative’ to the fact that resources are not ‘handed’ to them; instead, they must go out and work hard to find and get them. Finally, they see competition in relation to the size of the population—because there are so many people in India, they said, they are always competing with others in queues, in traffic and in classes (in fact, class standings are published in ranks). Thus while these initial observations should be interpreted cautiously, they seem to suggest that further research may be warranted to better understand the characteristics of Indian/South Asian aspiring entrepreneurs and the resources needed to support their aspirations.

Conclusion

Whether there are universal solutions or prescriptions in fostering entrepreneurship is at the heart of understanding the wide deviation in entrepreneurial activity worldwide. Morris and Schindeutte (2005) questioned that if indeed entrepreneurship is viewed as a universal phenomenon, does it follow that culture becomes largely an irrelevant factor? If so, that would imply a very different set of prescriptive remedies that a nation may advance in its efforts to stimulate entrepreneurial activity. Second, Morris and Schindeutte questioned whether an individual country would

vary in its entrepreneurial activity over time in relation to political and economic shocks? They concluded that entrepreneurial attitudes indeed appear to adapt rapidly to economic and political circumstances. Thus, they conclude that ‘culture matters, but it is less a precedent to entrepreneurship and is instead a complex and dynamically interacting factor’ (p. 472).

Has this, in fact, been the case for India, and have recent efforts and rapid economic growth succeeded in changing the ‘national mindset’ towards increasing levels of entrepreneurship? The results of this study suggest that the answer is yes and that the entrepreneurial spirit is alive and well in India. Despite a combination of social structures and cultural values within India that historically constrained entrepreneurship, the efforts in recent years, along with the economic growth and political changes, seem to have significantly shifted the national mindset regarding entrepreneurship, particularly among India’s youth.

The literature and analysis do not allow a clear determination of how the three primary forces impacting entrepreneurial orientation—culture, education and the environment—have interacted to shape the current entrepreneurial orientation of India’s collegiate youth. Indeed, as Morris and Schindeutte (2005) concluded, it is a complex interdependent process. Nevertheless, we note that many resources have been created to further entrepreneurial interest including the growing number of centres for entrepreneurship on college/university campuses, newly established academic departments and major/minor programmes of entrepreneurial studies. In short, students seem to have an increasing array of resources at their fingertips to support their entrepreneurial ambitions. And the engines of economic growth and opportunity have stimulated these young entrepreneurs to envision opportunity and seek its reward.

While this is the only study we know of that has empirically examined interest in entrepreneurship among Indian students, we hope it stimulates interest in the topic at a more international level since it appears that business students, whether in the US or India, possess some amazingly similar personal characteristics. While one small, cross-continental study cannot possibly portend to represent either US or Indian business students’ interest in entrepreneurship, or the more global characteristics/traits of entrepreneurially-oriented students, we hope that it stimulates greater interest in the topic, particularly in non-Anglo nations like India, since the entrepreneurial sector has been increasingly connected to economic

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activities and growth worldwide (Reynolds et al., 2004; Robbins et al., 2000; Thomas and Mueller, 2000). Indeed, it is a worldwide topic of interest, particularly for business school faculty whose aim is to educate the future of their country—the aspiring young entrepreneurs.

Notes

1. According to the UNDP's website, the human development index is 'a summary composite index that measures a country's average achievements in three basic aspects of human development: longevity, knowledge, and a decent standard of living. Longevity is measured by life expectancy at birth; knowledge is measured by a combination of the adult literacy rate and the combined primary, secondary and tertiary gross enrolment ratio; and standard of living is measured by per capita GDP (PPP US\$)' (UNDP, 2007).
2. The university at which the research was conducted is rated among 'America's 100 Most Wired Universities', and is well-known for its use of innovative technology, including in-class computer stations, wireless connectivity in academic buildings, web-based instructional activities, and so on. One hundred per cent of students have e-mail access as well as a Blackboard account.

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