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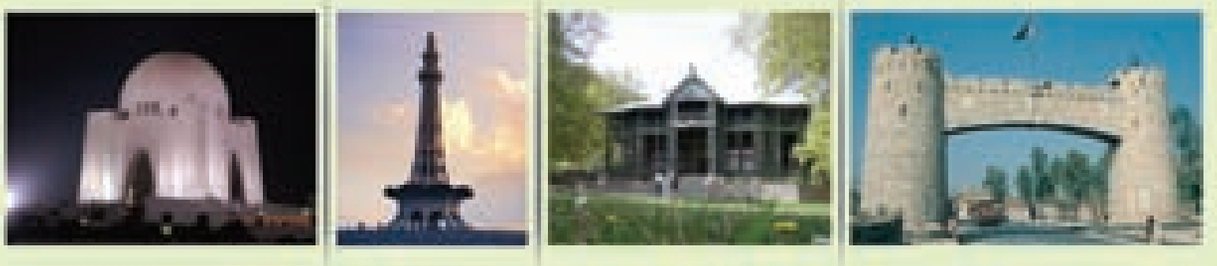
Leadership and Ideas for Tomorrow

Global Entrepreneurship Monitor



PAKISTAN

Report 2010

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FOREWORD

The entrepreneurial revolution has transformed and will continue to transform the world culturally and economically. According to the GEM studies, Entrepreneurship is exploding in countries like India, China, Korea, Mexico, Brazil and Columbia as they are exhibiting very high rates of participation in early stage entrepreneurship.

Entrepreneurship has become a central item in policy formulation and the link between public policy and entrepreneurial activity has become increasingly important. The governments and politicians are becoming aware of this link and have begun to emphasise the ways entrepreneurship leads to greater national and global prosperity.

Entrepreneurship is a panacea for a developing country like Pakistan, which has one of the highest population growth rates with the highest number of youth population. It is high time that the government, politicians, academic institutions and other stakeholders join hands in promoting entrepreneurship, so vital for the future of our national economy.

The centre for entrepreneurial development (CED) at the Institute of Business administration (IBA) is envisioned to be a breeding ground for innovative and high growth businesses and play a leading role in promoting entrepreneurship in our country and the region. After securing Pakistan's membership in GEM (Global Entrepreneurship Monitor), a prestigious world forum of entrepreneurially conscious nations, the GEM Pakistan project was launched in June 2010 under the sponsorship of IBA-Karachi.

I congratulate our GEM Pakistan Team on the completion of this first landmark study of various entrepreneurship characteristics in Pakistan that allows us to benchmark with the community of entrepreneurially active nations including our peer countries. I am confident that the research findings will help policy makers, researchers and educators in Pakistan to create awareness and enhance learning about the entrepreneurial process with the aim of creating new opportunities for our aspiring entrepreneurs by improving support for new and innovative business ventures.

Ishrat Husain
Dean and Director

ACKNOWLEDGEMENTS

On behalf of the GEM Pakistan 2010 team, I wish to thank the institutions and many individuals who supported and/or participated in the project. First, the Center for Entrepreneurial Development at IBA, which sponsored this study, deserves a special thank you — without the commitment and support of its leadership (notably, Dr. Ishrat Husain and Mr. Zafar Siddiqui) this project may not have been possible. Second, the US Agency for International Development provided most of the funding which was crucial for the implementation and success of this project, and I am thankful for their generous support. Third, the advocacy and necessary backing provided by GEM officials in collaboration with Babson College helped in securing additional funding and their assistance is duly recognized.

OASIS International played a key role as our APS vendor by collecting data from more than two thousand adult respondents from all over Pakistan — I appreciate their professionalism and timely completion of the survey. Appendix 3 provides a list of our NES experts who agreed to be interviewed and shared their expert opinions — I very much appreciate their input for this national cause.

It would be unfair if I do not recognize my GEM Pakistan 2010 Team colleagues who shared my optimism in Pakistan's entrepreneurial potential and were always ready to chip in by spending their time, sharing expertise and resources, often in challenging circumstances. Dr. Arif Rana coordinated our APS vendor selection process and helped in the NES data reporting, Dr. Shahid Mir supervised the APS field survey and coordinated with the vendor. Dr. Shahid Qureshi has been a great help in co-authoring this report and managing the report launch function. All of them assisted me in various tasks including interviewing our NES experts and I value their contributions. The assistance of Mr. Moid Sultan and Mr. Jehan Zeb of IBA is also recognized.

Finally, I would like to express my appreciation to Dr. Kristie Seawright, Ms. Genevieve Brown, Dr. Mike Herrington, Dr. Niels Bosma, Ms. Marcia Cole, Mr. Chris Aylett, Ms. Yana Litovsky, Dr. Alicia Coduras, Dr. Jeff Seaman and Dr. Jackie Odoch, all of the Global GEM Team for their continued encouragement and support of our GEM Pakistan initiative.

Sincerely,

Sarfraz A. Mian, PhD
Head and PI,
GEM Pakistan Team

EXECUTIVE SUMMARY

- In 2010, the Global entrepreneurship monitor (GEM) research consortium measured entrepreneurial activity of individuals in 59 member economies, making it the world's most authoritative comparative study of entrepreneurial activity in the general adult population. Two thousand adults aged 18-64 participated in the GEM Pakistan Survey in 2010.
- This national monitoring report compares global entrepreneurship monitor (GEM) measures of various entrepreneurial characteristics (attitudes, aspirations, and activities) in Pakistan and other participating countries. It also summarizes these entrepreneurial characteristics within various regions and cities of Pakistan. It examines the views of entrepreneurs on the impact of recent global recession on their own businesses. It also reports expert views on the environment for entrepreneurship in Pakistan and compares these with other GEM nations.
- The number of people in Pakistan who have a positive attitude towards entrepreneurship is less than the average of its factor-driven peer countries. However it is higher than the average figures of both more developed innovation and efficiency driven economies. Moreover the male population has a more positive attitude towards entrepreneurship in Pakistan as compared to the female population.
- Within Pakistan, the residents of Punjab have a higher favorable attitude towards entrepreneurship and perceive more opportunities in the near future. Among the major cities, the residents of Multan, Lahore and Faisalabad have a more positive perception of entrepreneurial opportunities in the future and perceive to have the highest level of skill set, knowledge and experience to start an entrepreneurial venture as compared to other major cities of Pakistan.
- Total early stage Entrepreneurial Activity or TEA rate (the sum of the nascent entrepreneurship rate and the new business manager rate) in Pakistan was 9.08 %. This is lower than the average TEA rates for the factor driven economies (22.8 %) and efficiency driven economies (11.7 %). However this is greater than the average TEA rate of Innovation driven economies (5.6 %).
- The TEA is classified into two types i.e. opportunity based TEA and necessity based TEA. About 5% of Pakistanis were involved in opportunity based early stage entrepreneurial activity. This rate is considerably less than the average of factor driven (8.8%) and efficiency driven countries (7.26%).
- The male TEA rate in Pakistan is more than four times that of the female TEA rate. The gender gap is pretty high as compared to other factor and efficiency driven countries.
- The Established Business Ownership (EBO) rate in Pakistan was 4.7 %. This is lower than the average EBO rates for Pakistan's peer factor driven economies (12.6 %), as well as efficiency driven (7.6 %) and innovation driven (7.0 %) economies
- The male Established Business Ownership (EBO) rate in Pakistan is almost 9 times that of female EBO rate. This shows that the gender gap in EBO is also very high as compared to other factor, efficiency and innovation driven countries.
- When surveyed , 6.64 % of the adult population in Pakistan was trying to start a business (nascent entrepreneurs) was lower than the average of factor-driven economy nations (11.8%);-, compared to 2.1 % in Egypt, 4.8% in Iran, 3.7% in Turkey, 11% in Chile and 10% in Ghana and Uganda.
- According to the survey, Pakistani population's new business ownership rate (owner managers of a business that was between 3 to 42 months old) was 2.7%. This rate is considerably less than the average of factor driven (11.8 %) and efficiency driven countries (5.2%). It is almost equal to the innovation driven economies rate (2.7 %)
- Entrepreneurial activity in various Pakistani regions is found to be as follows. Baluchistan has the highest rate of active involvement in startup effort and at the same time has the highest business closure rate. Punjab has the highest rate of established business owners and Sindh has the highest rate of expectations to start a business in the next three years.
- In Pakistan early stage entrepreneurs and business managers have low aspirations to grow as compared to most other GEM participating countries. The proportion of early stage Pakistani entrepreneurs reporting new product/market combinations and with at least 25% foreign customers is above the average of factor driven countries.
- In Pakistan 27.73% of the total working age population (including those entrepreneurially active) expressed opinion that fear of failure would prevent them from starting a business. The fear of failure in the Pakistani population is less than the average of the factor driven economies.
- In Pakistan, 9.1% of early stage entrepreneurs and 7.8% of established business owner-managers thought there were more opportunities for their business as a result of the global economic slowdown.
- 19.8 % of Pakistani early stage entrepreneurs and 18.4% of established business owner-managers thought there were fewer opportunities for their business as a result of the global economic slowdown.
- 21.9% of Pakistani early stage entrepreneurs thought that starting a business was more difficult than a year ago. However 29% of Pakistani established business owners thought that starting a new business was more difficult than a year ago.
- Experts on entrepreneurship in Pakistan gave government programs significantly lower ratings than the factor and efficiency driven countries. Cultural and social norms were also more negative for entrepreneurship in Pakistan than the other factor and efficiency driven countries.

CHAPTER 1: INTRODUCTION AND BACKGROUND

1.1 Study Introduction

This report provides the results of Pakistan's first national survey of various entrepreneurial characteristics studied under the Global Entrepreneurship Monitor (GEM) program. The aim of GEM research is to better comprehend the national/local entrepreneurship context by measuring attitudes, activities and aspirations of individuals participating in different phases of entrepreneurship. There is an ever increasing use of the GEM data and its research findings in policy making at all levels in order to promote entrepreneurship in member nations.

This project is accomplished through the collaborative work of participating national teams and is coordinated by the GEM consortium. According to the research design, each GEM national team conducts its adult population survey (APS) along with a national expert survey (NES) and the data are harmonized allowing national comparisons of the key entrepreneurial dimensions. The last GEM 2010 Global Report summarizing this world-wide data gathering and research activity of 59 national teams including Pakistan was released earlier in January 2011 (see www.gemconsortium.org).

Pakistan joined GEM in 2010 under the sponsorship of IBA Karachi and undertook its first GEM study starting the project in the summer of 2010. Every effort was made to ensure data quality and reliability of results, for which necessary weights were calculated (see Appendix 2) to address repetitiveness of the sample along gender and urban-rural lines. This report focuses on Pakistan specific findings providing necessary analyses and benchmarking with the peer nations. The work is intended to create public awareness, promote research and aid policymakers of Pakistan in identifying and helping to address the underlying issues impeding entrepreneurial growth by formulating enabling policies and support programs to enhance entrepreneurship in the nation.

1.2 Overview of the GEM Program and Research Model[1]

Founded in the 1990s[2] , GEM program is administered by the Global Entrepreneurship Research Association, a not-for-profit body of academic researchers from prominent business schools across the globe. Over the last 12 years of its inception the program has experienced phenomenal growth to include over 80 countries most of whom conduct their national GEM surveys every year.

GEM focuses on three main objectives:

- To measure differences in entrepreneurial attitudes, activity and aspirations among nations.
- To uncover factors determining the nature and level of national entrepreneurial activity.
- To identify policy implications for enhancing entrepreneurship in an economy.

GEM is based on the following premises. First, an economy's prosperity is highly dependent on a dynamic entrepreneurship sector. This is true across all stages of development. Yet the nature of this activity can vary in character and impact. Necessity-driven entrepreneurship, particularly in less developed regions or those experiencing job losses, can help an economy benefit from self-employment initiatives when there are fewer work options available. More developed economies, on the other hand, can leverage their wealth and innovation capacity, yet they also offer more employment options to attract those that might otherwise become entrepreneurs. In order to maintain their entrepreneurial dynamism they need to instill more opportunity-based motives.

Second, an economy's entrepreneurial capacity requires individuals with the ability and motivation to start businesses, and positive societal perceptions about entrepreneurship. Entrepreneurship should include participation from all groups in society, including women, a range of age groups and education levels and disadvantaged populations. Finally, high-growth entrepreneurship is a key contributor to new employment in an economy, and national competitiveness depends on innovative and cross-border entrepreneurial ventures.

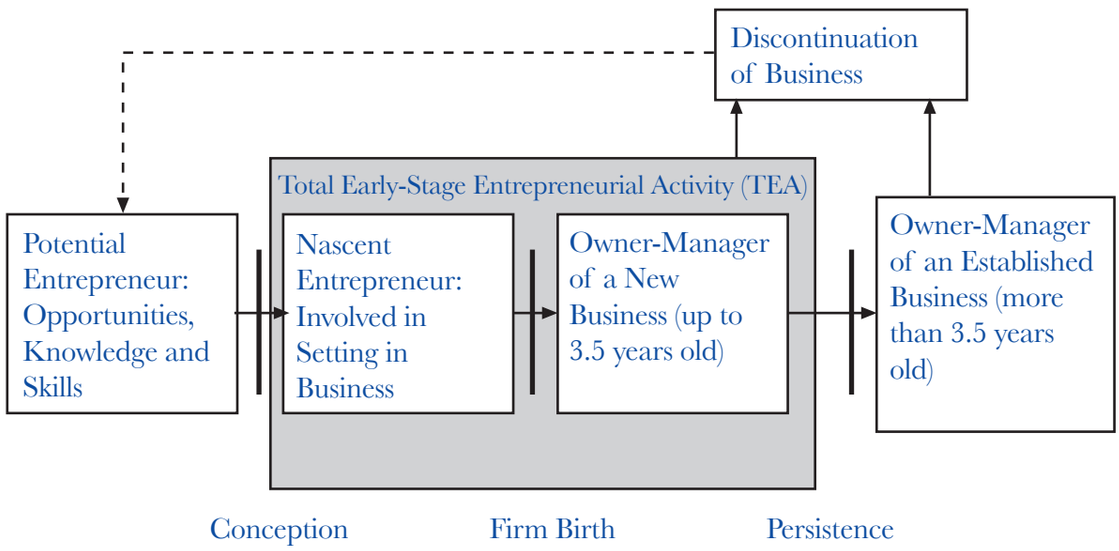
GEM Measures

At the time of GEM's founding, traditional analyses of economic growth and competitiveness had, for the most part, neglected the role played by new and small firms in national economies, due, in some measure, to the lack of good data on this sector. This information, when available, tended to be present in only those countries at the most advanced stages of economic development.

Existing measures, such as self-employment rates, did not reflect the dynamic scope of entrepreneurship. And while most governments have long maintained records of formal business registrations, it wasn't until GEM emerged that an accurate picture could be drawn of the people, and how many of them businesses in different corners of the world started.

The main guiding purpose of GEM is to measure individual involvement in venture creation. This differentiates GEM from other data sets, most of which record firm-level data. A second aim of this research is to promote entrepreneurship as a process comprising different phases, from intending to start, to just starting, to running new or established enterprises and even discontinuing these. Figure 1 summarizes the entrepreneurship process and GEM's operational definitions. For more information on the GEM methodology, visit the website at www.gemconsortium.org. The most common operational variables and their definitions are outlined in Appendix 1.

Figure 1: The Entrepreneurship Process and GEM Operational Definitions



Through the wealth of measures GEM tracks, we can understand which types of people are (and are not) participating in entrepreneurship. We capture both those formally registering their businesses and those running informal ones. These unregistered businesses, in fact, can compose as much as 80% of economic activity in developing countries.[3]

People launch businesses for a variety of reasons. They may be led into entrepreneurship out of necessity: the pursuit of self-employment when there are no better options for work. In contrast, their efforts may be powered by the desire to maintain or improve their income, or to increase their independence. GEM therefore assesses the motives of entrepreneurs

GEM additionally measures aspirations. These aspirations may be evident in innovative products or services or the pursuit of customers beyond national borders. They may also include high- growth ambitions, thereby contributing more markedly to new employment in their economies.

Recognizing that entrepreneurs are driven not only by their own perceptions about starting a business, but the attitudes of those around them, GEM considers the attitudes representing the climate for entrepreneurship in a society. Entrepreneurs need to be willing to take risks and have positive beliefs about the availability of opportunities around them, their ability to start businesses and the value of doing so. At the same time, they need customers who are willing to buy from them, vendors willing to supply them and families and investors ready to support their efforts. Even positive societal perceptions about entrepreneurship may indirectly stimulate this activity.

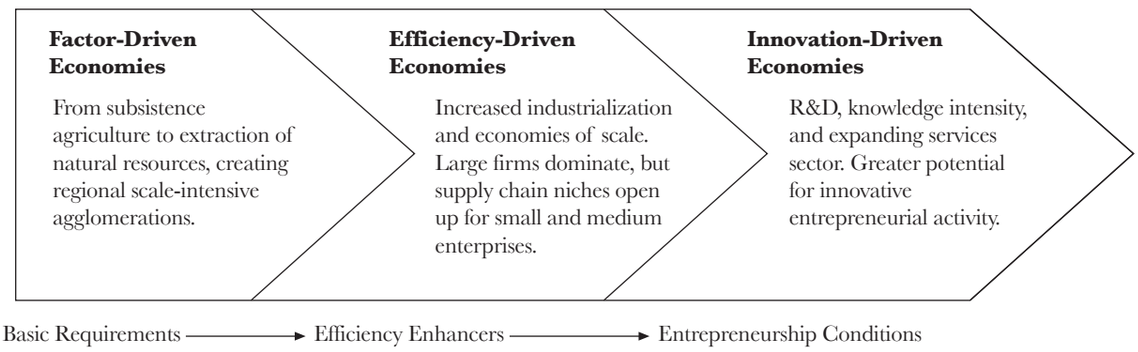
Economic Development Level and Entrepreneurship

GEM's harmonized dataset enables comparisons of entrepreneurship activity around the globe, and within and across geographic regions. This report additionally examines groups of economies at similar development levels. Following a typology used by the World Economic Forum, GEM classifies the 59 GEM participants as "factor-driven," "efficiency-driven" or "innovation-driven" economies[4].

Figure 2 illustrates the characteristics of these economic groups and the key development focus at each level. As an economy develops, productivity increases and, consequently, so does per capita income. This is often accompanied by the migration of labor across different economic sectors. For example, labor may move from agricultural and extractive sectors to manufacturing, and then eventually to services[5]. In their early stages of development, economies typically have a higher proportion of necessity-driven activities. Here, the demand for jobs in high-productivity sectors outpaces supply. As a result, many people must create their own source of income.

With further development comes the growth of productive sectors. This increases employment capacity but leads to gradual declines in the level of necessity-driven entrepreneurship. At the same time, improvements in wealth and infrastructure stimulate opportunity-based businesses, shifting the nature of entrepreneurship activity. These ventures are more likely associated with greater aspirations for growth, innovation and internationalization. They rely, however, on the economic and financial institutions created during the developing phases. To the extent these institutions are able to accommodate and support opportunity-seeking entrepreneurship activity, innovative entrepreneurial firms may emerge as significant drivers of economic growth and wealth creation[6].

Figure 2: Characteristics of Economic Groups and Key Development Focus



GEM additionally considers geographic factors, grouping countries into six geographic regions: sub-Saharan Africa, the Middle East and North Africa (MENA), Latin America and the Caribbean, Eastern Europe, Asia/Pacific and the United States and Western Europe. With both groupings, we can compare economies across similar development levels and geographic locations. The economic and geographic groupings are shown in Table 1.

Table 1: GEM 2010 Participating Countries Classified by Economy and Geography

	Factor-Driven	Efficiency-Driven	Innovation-Driven
Sub-Saharan Africa	Angola, Ghana, Uganda, Zambia	South Africa	
Middle East/ North Africa	Egypt, Iran, Pakistan, Saudi Arabia, West Bank and Gaza	Tunisia	Israel
Latin America and Caribbean	Jamaica, Guatemala, Bolivia	Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Peru, Trinidad and Tobago, Uruguay	
Eastern Europe		Bosnia and Herzegovina, Croatia, Hungary, Latvia, Macedonia, Montenegro, Romania, Russia, Turkey	Slovenia
Asia Pacific	Vanuatu	Malaysia, China, Taiwan	Australia, Japan, Republic of Korea
United States Western Europe			Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, and Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States

The GEM Model

Figure 6 illustrates the GEM model, which shows, first, the relationship between the social, cultural and political context and three sets of framework conditions. These framework conditions are modeled as impacting the attitudes of a population toward entrepreneurship, and the activity and aspirations of entrepreneurs. In turn, entrepreneurship activity, as well as the growth of established firms in the primary economy, influence economic growth.

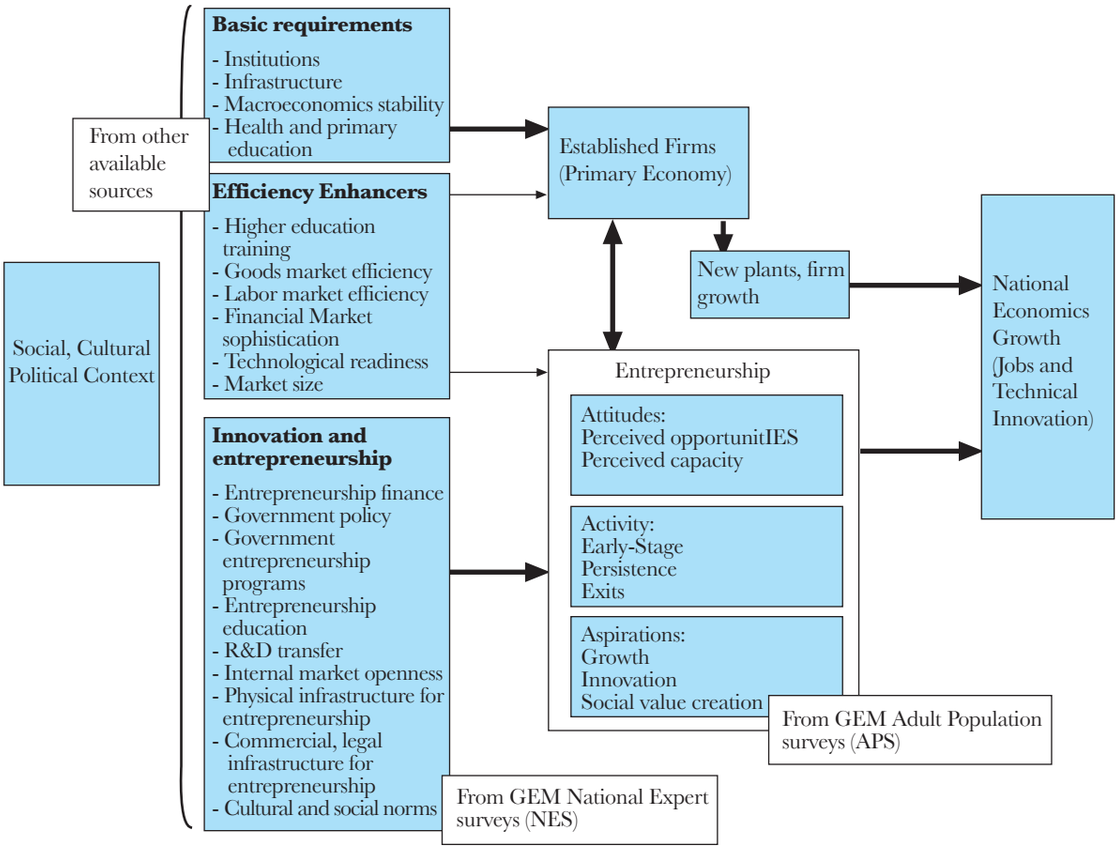
As Figure 2 shows, the key imperative in factor-driven economies lies in building basic requirements such as primary education, healthcare, infrastructure and so forth. Later-stage factors like entrepreneurial finance and government entrepreneurship programs are unlikely to have substantial impact if, for instance, entrepreneurs don't have good roads to transport goods or a sufficiently educated labor force from which they can recruit employees. In other words, investments in entrepreneurship-specific framework conditions may be less effective in enabling business creation if they are made at the expense of basic requirements.

Entrepreneurs with high aspirations fare better in countries with a stable economic and political climate and well-developed institutions. This, in fact, may account for the activities of certain groups of immigrants into wealthier economies. At the same time, economic progress begets scale economies. Large firms are more efficient from a national perspective and, for many individuals, a more attractive employment alternative to necessity-based entrepreneurship.

To replace the migration of necessity entrepreneurs toward employment in large companies, efficiency-driven economies must attract more opportunity-based entrepreneurship. The second set of framework conditions represents efficiency enhancers. These are directed toward ensuring that markets function properly. The nurturing of economies of scale can, in fact, be complemented by the emergence of growth- and technology-oriented entrepreneurs, expanding the scope of employment in a society.

Advanced economies have a relatively sophisticated foundation of basic requirements and efficiency enhancers. While these factors are essential in sustaining necessity-based entrepreneurship, they may be insufficient drivers of opportunity-based behavior. Here, knowledge is prevalent but labor is expensive. Entrepreneurship-specific framework conditions become the levers that drive dynamic, innovation-oriented behavior, while the foundation of basic requirements and efficiency enhancers needs to be maintained.

Figure 3: The GEM Model



1.3 Entrepreneurship in Pakistan: Challenges and Opportunities

Historically, entrepreneurship in the sense of its modern definition[7] has remained very limited in Pakistan. The development of small-scale industrial sector measured through new firm entry rate, if taken as proxy to reflect entrepreneurial activity in Pakistan, show the average annual firm entry rate in Pakistan lower than most regional averages around the world[8]. There is, however, a note of caution here that a large number of new firm entries remain unregistered in Pakistan's significant small scale informal business sector. The Small and Medium Enterprise Development Authority (SMEDA) estimates that in Pakistan, small and medium enterprises (SMEs) with less than 100 employees constitute nearly 90% of all 3.5 million private firms that employ 80% of the non-agricultural labor force; and their share in the annual GDP is 40%[9] . Their firm structure is dominated by sole proprietorship and most are family run businesses with no culture of taking it to the pubic (IPOs).

A review of the past 6 decades of Pakistan's development priorities reveals that entrepreneurship has never been the focus of economic development planners. All these years of government efforts clearly show a bias towards large scale industry and neglect of the small. The historical evidence clearly indicates that, in the context of Pakistan, when one talks about industrialization, for most people it implies large plants and factories run by machines and employing a large number of workers. It definitely comes as a surprise to people when they discover the reality; that it is actually the informal sector and the small scale sector that dominates the industrial landscape of Pakistan which have been continuously ignored in the national economic policies.

However, in recent years, with the increasing realization of entrepreneurship and innovation as engines of economic growth, there had a rise in interest in Pakistan to review its economic policies by placing emphasis on entrepreneurial growth[10].

As stated earlier, generally, the development of small-scale sector reflected the characteristics of entrepreneurship however this sector had largely grown up as an informal sector. The informal small scale sector has dominated employment in the construction, wholesale, retail trading, hotels, transport, communications and storage industries in urban areas. Some of the issues faced by the small and medium size firms located in different SME clusters in Pakistan are reported as follows[11]:

- Small businesses face a complex legal, tax and administrative environment in Pakistan therefore most firms avoided the economic obligations associated with the registered status.
- Entrepreneurs generally are not tuned to conducting R&D as they believed that the high cost of production and narrow margins did not give them the leverage to go for R&D. Major rationale behind the high cost included high utility prices and minimum wage fixed by government. Another reason of lack of focus on R&D was the nature of industry, which was skill based (imitation) rather than the knowledge based. Nevertheless, research was being undertaken to explore new markets based on personal visits of entrepreneurs either privately or in some cases in groups sent out by the government organizations to promote trade.
- The small businessman, by and large, expected from the government to provide incentives and subsidies, given the rent-seeking culture that has now been established, businessmen, instead of focusing on their own innovation, expected help from the government most of the times.
- Businesses remained largely owner-operated and resistant to developing professional management, as the business growth was traditionally dependent on policy favors rather than on professional management and strategy. Moreover, in clusters, there was no expertise for providing practical advice on key areas such as project feasibility, business operations, brand establishment and marketing. Given the lack of market depth, input from research institutions, universities and other forms of specialized knowledge, knowledge spillovers remained narrow and imitative.
- Scarcity of skilled labor was considered as a major constraint for the development of entrepreneurship. Like all less resourceful firms, the SMEs typically had skill deficiencies and were unable to compete with larger firms' better-qualified manpower. Inter-firm transfer of skilled labor was a usual phenomenon directly influenced by relative wage levels. In this game, the larger firms had advantage over SMEs. Unfortunately, the technical skills were not adequately rewarded by the employers. Even the society never respected people having blue-collared jobs.
- Over and above, lack of trust among the business community was a serious hindrance to growth, impeded cooperation among entrepreneurs to develop the existing or explore the new markets. The entrepreneurs in their attempts to hide business information used to maintain mailing address and banks in other cities. Another serious complaint was that the labor trained by one employer, either moved to another employer or opened up his own firm. Businesses remained owner-operated owing to lack of trust on professional employees in the clusters as an employee who gained knowledge easily replicated with stolen business information.
- Small businessmen had little recourse to bank financing. They believed that the banks lent only to the big borrowers for non-commercial and political reasons. The biggest stumbling block was the State Bank of Pakistan's Prudential Regulations and documentation requirements, which most SMEs were unable to meet. Cut-throat competition, willing to go for the solo flight, lack of attitude towards delegation, lack of corporate culture, lack of knowledge/proper homework and lack of relevant business development systems provision in the industry had knocked down the SMEs in Pakistan.

Despite these challenges, the two key potential areas of opportunity where entrepreneurship can make significant contributions are: First, more than 2/3rd of Pakistan's population is concentrated below the age of 30, which will change the age structure of working age population over the next few years. Majority of the youth entering the labor force over the next two decades will have little education and skills catering to market demand[12]. Moreover, incessant shocks to the economy such as energy crisis, international commodity price shocks, security issues, and flash floods of 2010/11 have left little resilience in the economy and absorption capacity for growing youth labor force. This required a rethinking about the sources of growth in Pakistan's context and entrepreneurship has the greatest potential to fill this gap.

Second, in the area of indigenous technology transfer, various researchers have underscored the need for establishing industry-university linkages. According to some estimates[13] in eight years, between 1999 and 2007, Pakistan had increased R&D investment by 600% which stood at 0.7% of GDP or USD 1.176 billion. At the same time number of researchers in Pakistan has grown from 187 per million in 2005 to 310 in 2007. Though Pakistan suffered significant economic challenges in the following years[14], there is still considerable R&D capacity in the nation's universities and institutions, particularly in the science and technology focused programs[15]. This new capacity can be converted into new entrepreneurship opportunities, economic growth and wealth creation by linking it with better trained young entrepreneurs.

The above scenario leads us to believe that the country's underdeveloped small business and entrepreneurial sector which is facing numerous economic challenges, can benefit from the available manpower resource opportunity if mobilized through an entrepreneurially oriented development approach envisaged by the GEM project.

Chapter 2: Findings of GEM Pakistan 2010

2.1 Overview of the Research Results

Pakistan's first GEM 2010 study reveals that its 'Total early-stage Entrepreneurial Activity' (TEA) rate is 9.1 percent, of which 6.6 percent are 'nascent entrepreneurs' and 2.7 percent new 'business owner-managers.' The male TEA rate is 4.5 times to female TEA rate. The national established business ownership rate is 4.7 percent; the opportunity based entrepreneurial activity is 5.0 percent; and the necessity based entrepreneurial activity rate is 3.6 percentage points.

Table 2 shows a comparative review of Pakistan's various entrepreneurial and framework condition characteristics with its several peer nations.

Table 2: Comparison of various entrepreneurial characteristics and framework conditions of Pakistan with Peer Nations, 2010

	Pakistan	Iran	Turkey	Saudi Arabia	Egypt	West Bank & Gaza
Entrepreneurial Characteristic						
TEA Rate	**9.1**	12.4	8.6	9.4	7.0	10.4
Nascent Entrepreneurship rate	**6.6**	4.8	3.7	5.9	2.1	7.9
New Business Ownership rate	**2.7**	7.8	5.1	3.5	4.9	2.6
Necessity driven Entrepreneurship	**41%**	38%	37%	10%	53%	32%
Female to male TEA ratio	**1 to 4.5**	n.a.	1 to 3.7	n.a.	1 to 2.2	n.a.
Perceived capability to carry out	**56.2 %**	65.7%	54.2%	69.3%	63.4%	57.0%
Entrepreneurship Fear of failure	**27.73%**	37.51%	32.52%	37.82%	34.43%	40.0%
Entrepreneurship Framework Conditions						
Commercial infrastructure	**+**	.	+	n.a.	.	+
Internal market dynamics	**+**	+	+	n.a.	+	+
Physical infrastructure	**+**	+	.	n.a.	+	+
National policy	**-**	n.a.	n.a.	n.a.	n.a.	n.a.
Govt. programs	**-**	-	n.a.	n.a.	-	-
Education	**-**	-	n.a.	n.a.	-	-

The predominant motive for pursuing entrepreneurial activity (TEA) in the country is to increase income (38.0 percent) and to a much lesser degree (2.8 percent) acquire independence. The growth expectations are a modest 3.5 percent.

Of the entrepreneurs (TEA), 75 percent find it more difficult to start a business and 80 percent report more difficult (or about the same) to grow it, with 56 percent pointing towards less business opportunities, compared to a year ago. Similarly, of the established businesses 64 percent find it more difficult to start and 83 percent report that it is more difficult (or about the same) to grow businesses, with 49 percent saying there are less business opportunities, than a year ago.

In Pakistan, 9.1% of early stage entrepreneurs and 7.8% of established business owner-managers thought there were more opportunities for their business as a result of the global economic slowdown. 19.8 % of Pakistani early stage entrepreneurs and 18.4% of established business owner-managers thought there were fewer opportunities for their business as a result of the global economic slowdown. 21.9% of Pakistani early stage entrepreneurs thought that starting a business was more difficult than a year ago. However 29% of Pakistani established business owners thought that starting a new business was more difficult than a year ago. There had been a significant fear of failure (27.7 percent reporting) that prevented to start a business.

In terms of entrepreneurial environment manifested in the framework conditions prevailing in Pakistan, the commercial and physical infrastructure and the internal market dynamics were described as adequate, while the national policy towards entrepreneurship and related support programs including education were considered weak by the national experts. Overall, new firm start-up as well as established business growth activity and related opportunities have been severely curtailed during the past several years due to the on-going 'war on terrorism' in the north western region of Pakistan bordering Afghanistan and the resulting precarious security situation in the rest of the country. The economic situation worsened further due to natural calamities including a major earth quake and recent widespread floods. In this scenario a precise impact of global financial crisis in light of these national catastrophic events is hard to discern.

2.2 Entrepreneurial Attitudes

According to GEM, entrepreneurial attitudes convey the feelings of a population group towards entrepreneurship in general. People who recognize the importance of entrepreneurship as it relates to the ability of individuals to deploy their competencies in order to exploit opportunities given a favorable or not so favorable environment tend to formulate certain views about entrepreneurship which are manifested in their attitudes towards this phenomenon. For this purpose GEM employs specific questions in the Adult Population Survey (APS) that measure these attitudes through various indicators.

More importantly, the difference in entrepreneurial activity rates between countries can be explained by differences in attitudes of the population towards entrepreneurship. Table 3 provides the attitudinal estimates for all participating countries in the adult working age (18-64) population who are not entrepreneurially active[16]. The percentage of the responding adults in each participating country including Pakistan, who expressed an opinion and agreed with the four key indicators, is listed in the Table. The countries are divided into three groups i.e., innovation driven, efficiency driven and factor driven economies with the following salient findings.

- In the innovation driven countries, the proportion of the non entrepreneurial working age population who are aware of new entrepreneurial startups and who perceive good startup opportunities in the next six months is the highest in Sweden. The skill, knowledge and experience perception is highest in the US. The Dutch people have the lowest fear of failure.
- In the efficiency driven countries, , the proportion of the non entrepreneurial working age population who are aware of new entrepreneurial startups, who perceive good startup opportunities in the next six months and the skill, knowledge and experience perception is the highest in Peru. The South African people have the lowest fear of failure.
- In the factor driven countries, the proportion of the non entrepreneurial working age population who are aware of new entrepreneurial startups, who perceive good startup opportunities in the next six months and the skill, knowledge and experience perception is the highest in Uganda. The Ghanaian people have the lowest fear of failure.

Overall, respondents from factor-driven economies generally rated their entrepreneurial attitudes more positively followed by efficiency driven economies and innovation-driven economies respectively. Comparisons within the 14 factor driven economies show that Pakistan's adult population attitude measures are less positive than the group averages in all four indicators.

Table 3: Attitudes towards Entrepreneurship in Participating GEM Countries in 2010

Participating Country	I personally know someone who started a business in the past 2 years	There are good start up opportunities where I live in the next 6 months a business	I have the required knowledge/skills & experience to start	Fear of failure would prevent me starting a business
Innovation Driven Economies				
Australia	30.33	45.69	53.16	36.32
Belgium	24.01	39.58	44.86	34.63
Denmark	41.67	46.42	40.75	35.17
Finland	43.67	51.13	39.53	32.14
France	47.83	33.87	37.27	42.96
Germany	29.99	28.48	41.63	44.41
Greece	39.96	15.91	52.18	60.13
Iceland	48.76	48.74	48.99	35.15
Ireland	34.64	22.50	49.15	38.73
Israel	35.95	35.17	41.61	43.32
Italy	30.36	24.68	42.42	44.50
Japan	17.44	5.92	13.71	35.06
Korea	31.12	13.01	28.96	34.25
Netherlands	38.06	44.80	45.51	25.64
Norway	37.82	49.75	40.45	29.86
Portugal	33.12	20.25	52.08	39.26
Slovenia	49.04	26.80	56.34	32.54
Spain	32.42	18.84	50.20	44.80
Sweden	53.92	66.10	42.43	35.02
Switzerland	33.54	33.33	43.85	30.73
United Kingdom	34.24	29.24	51.82	38.91
United States	28.77	34.79	59.52	32.22
Efficiency Driven Economies				
Argentina	41.71	50.35	63.54	24.96
Brazil	43.41	48.12	57.94	37.69
Chile	49.48	65.05	65.60	26.75
China	59.70	36.17	42.33	32.71
Colombia	40.90	68.18	65.10	31.49
Costa Rica	58.30	46.38	68.80	33.79
Croatia	35.13	23.32	53.19	39.24
Hungary	32.78	33.33	43.36	48.98
Latvia	39.48	29.10	50.75	40.42
Macedonia	41.45	34.26	59.72	36.16
Malaysia	47.79	40.06	24.33	48.46
Mexico	54.61	55.56	64.65	35.72
Montenegro	59.93	36.07	70.88	41.12
Peru	63.90	71.39	76.48	32.96
Romania	39.05	17.52	38.18	45.99
Russia	34.02	21.65	22.69	37.52
South Africa	38.64	40.91	44.30	25.44
Taiwan	38.87	29.63	26.42	41.64
Turkey	36.43	36.14	54.18	32.52
Factor Driven Economies				
Angola	68.78	67.31	73.11	26.83
Bolivia	50.38	53.24	75.84	30.26
Ecuador	41.21	50.27	76.59	34.67
Egypt	45.96	38.79	63.35	34.43
Ghana	52.95	75.72	74.65	11.82
Guatemala	50.32	62.93	71.00	28.47
Iran	41.59	41.59	65.72	37.51
Jamaica	53.90	56.09	80.16	32.18
Pakistan	**48.23**	**51.95**	**56.17**	**27.73**
Saudi Arabia	46.51	75.84	69.31	37.82
Tunisia	57.47	37.58	53.11	25.07
Uganda	70.27	80.54	86.69	22.49
Uruguay	43.69	52.05	73.30	30.96
Zambia	70.71	81.36	77.51	13.87
Factor Driven Economies Average	52.99	58.94	71.71	28.15

Entrepreneurial Attitudes in Pakistan

Table 4 shows estimates of the prevalence of attitudes towards entrepreneurship in Pakistan among the non-entrepreneurially active working age population by gender. Those successful at starting a new business have a high level of status and respect in society and most people consider starting a new business a good career choice. The Table shows that males tend to have more positive entrepreneurial attitude than females. The gap is particularly marked between the variables as follows.

- The male respondents are more aware of someone who has started a business in the last two years, a proxy measure of networking with entrepreneurial individuals
- The male respondents perceive a higher number of startup opportunities and feel better equipped with the knowledge, skill and experience to start a new business.
- The female respondents have less fear of failure to start a business and moreover they have a positive perception that successful entrepreneurs have a high level of status and respect in society.

Table 4: Entrepreneurial Attitude in Pakistan: Respondents expressing the opinion and agreeing with the statement

Statement	All	Male	Female
I personally know someone personally who started . a business in the past 2 years	48.2%	64.3%	30.6%
There will be good startup opportunities where I live in the next six months.	51.7%	62.0%	39.3%
I have the knowledge, skill and experience to start a new business.	56.6%	67.7%	44.0%
Fear of failure would prevent me from starting a business.	31.5%	32.0%	30.9%
Most people consider starting a new business a good career choice.	77.3%	77.8%	76.7%
Those successful at starting a new business have a high level of status and respect in society.	80.4%	79.4%	81.5%
You will often see stories about people starting successful new businesses in the media.	61.3%	61.4%	61.2%

Entrepreneurial attitudes of the non entrepreneurially active working age population in various provinces of Pakistan are presented in table 5.

The key findings are as follows.

- The people of Punjab were more likely to agree with the statement "I personally know someone who has started a business in the last two years" which is a proxy for networking than respondents in any other region.
- In addition the people of Punjab had the highest proportion of the non entrepreneurially active population reporting that there were good start up opportunities in their local area in the next six months.
- The people of Sindh were the most likely to agree with statement that "I have the knowledge, skill and experience required to start a new business".
- The people of Khyber Pakhtoon Khowa had the lowest fear of failure to start a business.

Table 5: Perceptions of entrepreneurship among non entrepreneurially active working age population towards entrepreneurship in various provinces of Pakistan

Province	I personally know someone who has started a business in the last two years	There will be good startup opportunities where I live in the next 6 months	I have the knowledge, skill and experience required to start a new business	Fear of failure would prevent me from starting a business
Sindh	48.1%	49.7%	60.8%	31.0%
Punjab	49.7%	53.7%	58.8%	31.7%
Baluchistan	47.8%	45.9%	46.1%	42.0%
Khyber Pakhtoon Khowa	42.1%	48.1%	41.6%	27.6%

The self reporting of attitudes of the non entrepreneurially active working age population towards entrepreneurship in various cities of Pakistan is presented in table 6.

- As noted earlier, the residents of Punjab were more likely to agree with the item "I personally know someone who has started a business in the last two years than respondents in any other region. Among the major cities the residents of Multan were more likely to agree with this item than other cities.
- The people of cities in Punjab, Sindh and Khyber Pakhtoon Khowa had the highest proportion of the non entrepreneurially active population reporting that there was good start up opportunities in their local areas in the next six months. The residents of Quetta reported less startup opportunities.
- The people of Peshawar, Multan and Faisalabad were the most likely to agree with statement that "I have the knowledge, skill and experience required to start a new business".
- The people of Hyderabad had the lowest fear of failure to start a business.

Table 6: Perceptions of entrepreneurship in various cities of Pakistan

City	I personally know someone who has started a business in the last two years	There will be good startup opportunities where I live in the next 6 months	I have the knowledge, skill and experience required to start a new business	Fear of failure would prevent me from starting a business
Islamabad	42.1%	47.4%	35.3%	40.0%
Faisalabad	55.0%	58.5%	67.5%	10.8%
Lahore	52.3%	58.3%	63.5%	21.0%
Multan	56.7%	68.0%	70.0%	55.6%
Hyderabad	35.0%	42.1%	45.0%	6.3%
Karachi	33.3%	40.4%	53.8%	30.9%
Quetta	30.0%	11.1%	60.0%	16.7%
Peshawar	26.3%	53.3%	73.7%	31.6%

2.3 Entrepreneurial Activity

GEM considers entrepreneurship as a step-wise process in which individuals become increasingly engaged in this activity. Total Early-stage Entrepreneurial Activity (TEA) the key regional measure employed by GEM includes nascent entrepreneurs involved in setting up of businesses and those owning and running new businesses less than 3.5 years (42 months) old. Additionally, GEM assesses the rate and nature of business discontinuance as well as necessity based verses opportunity oriented entrepreneurship.

Table 7 shows TEA rates in various GEM participating countries listed under three economic levels. On average, the highest TEA rates are found in factor-driven economies, followed by efficiency driven economies and they are lowest in innovation driven economies. The nature of these differences are explained primarily by the need for necessity verses opportunity motives given the

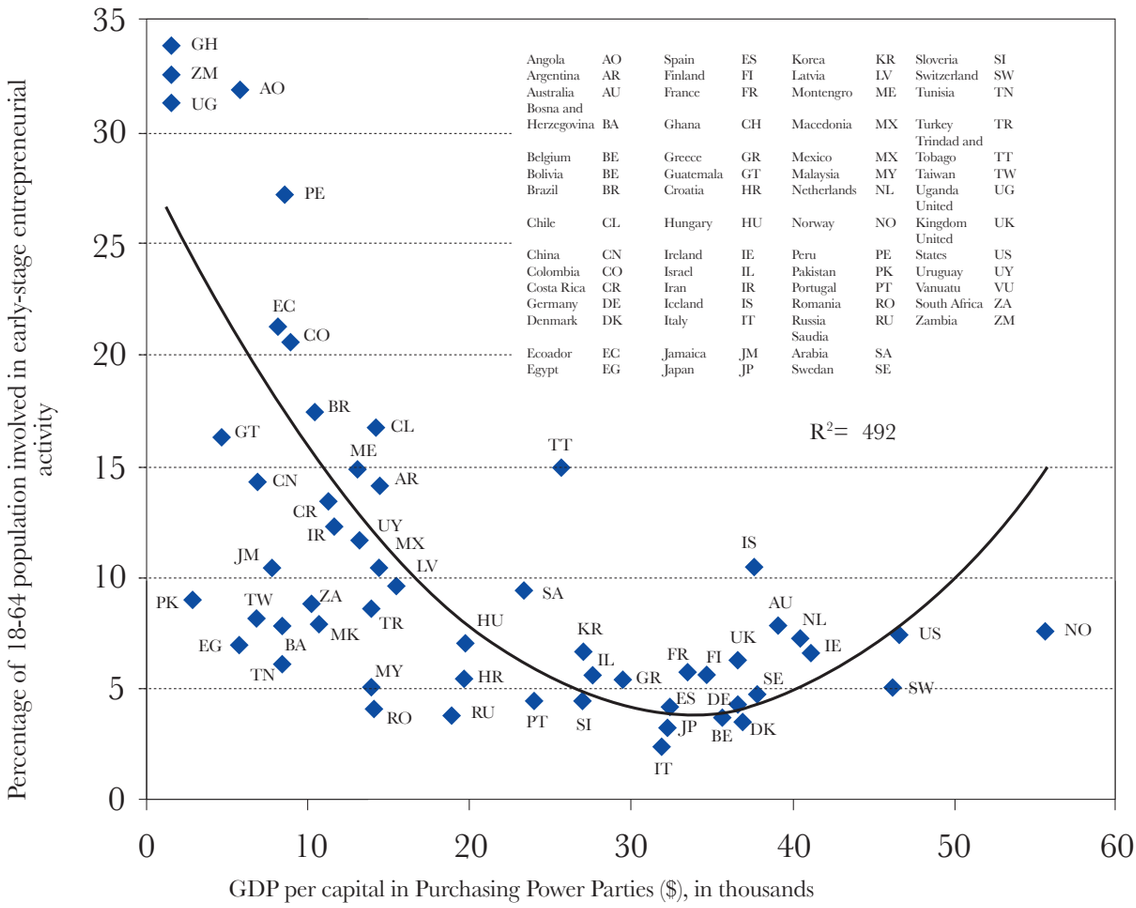
development level of a country or region and is further articulated in the relevant sections below. Within the Middle Eastern, North Africa and South Asia (MENA/SA) region the TEA rates are relatively lower than the Sub-Saharan African countries with the small Vanuatu island nation reporting the highest rate (52.2). Compared to Pakistan (9.1), India had higher rate (11.5) in 2008. There are significant variations in the TEA rates of efficiency driven economies with China showing higher rate (14.4) than Eastern European countries in general. Among the innovation driven economies Iceland has the highest rate (10.6) followed by Australia (7.8) and then the US (7.6). Italy, Japan, Belgium, Denmark and Russia had the lowest TEA rate among these nations.

Table 7: Total early stage Entrepreneurial Activity in GEM participating countries in 2010

Country	TEA Rate	Country	TEA Rate	Country	TEA Rate
Innovation Driven Economies		Switzerland	5.04	***Factor-Driven Economies***	
Australia	7.80	UK	6.42	Angola	31.94
Belgium	3.67	USA	7.59	7.59	21.25
Denmark	3.77	***Efficiency-Driven Economies***		Egypt	7.02
Finland	5.72	Argentina	14.20	Ghana	33.95
France	5.83	Brazil	17.50	Guatemala	16.30
Germany	4.17	Chile	16.77	Iran	12.31
Greece	5.51	China	14.37	Jamaica	10.48
Ireland	6.76	Korea	6.56	**Pakistan**	**9.08**
Israel	5.71	China	14.37	Saudi Arabia	9.40
Italy	2.35	Colombia	20.61	Tunisia	6.12
Japan	3.30	Hungary	7.13	Uganda	31.29
Korea	6.56	Malaysia	4.96	Uruguay	11.68
Netherlands	7.22	Mexico	10.45	W. Bank & Gaza	10.37
Norway	7.72	Peru	27.24	Zambia	32.63
Portugal	4.40	Romania	4.29	Angola	31.94
Slovenia	4.65	Russia	3.94	Ecuador	21.25
Spain	4.31	Taiwan	8.37	Egypt	7.02
Sweden	4.88	Turkey	8.59	Ghana	33.95

Figure 4 plots the national TEA rates against their GDP per capita income in purchasing power parity (PPP) terms. It depicts that the TEA rates are highest for the low-income factor driven countries, declining and then leveling out in the middle-income efficiency driven countries, with low levels into the richer innovation driven countries stage, and then start turning upward for certain wealthiest countries. These trends in global TEA estimates show that there may be factors other than income differences which are impacting these TEA rates. Some of the plausible explanations of low TEA rates are falling populations and a low stock of trained business owner managers, especially experienced by the Eastern European countries.

Figure 4: Total Early-Stage Entrepreneurial Activity Rates and Per Capita GDP 2010



(Source: GEM Adult Population Survey (APS) and IMF World Economic Outlook Database)

In addition to the TEA rate, GEM measures the proportion of established business owners-managers in the working age population (EBO). Established business owner managers have owned or managed a business for more than 42 months. Finally, GEM measures the proportion of individuals of working age population who closed down their businesses in the last 12 months, one that did not continue under a different form or ownership.

The ratio of established business ownership to early stage entrepreneurship gives a proxy measure of transition rates from early stage entrepreneurship to established business ownership. This can be interpreted as a proxy survival measure.

The ratio of closure to business ownership (new plus established) gives a proxy of entrepreneurial dynamism or "churn". The 2010 results of the participating countries are given in Table 8.

The GEM survey is a survey of individuals and not a survey of registered businesses. Therefore, the figures reported for business ownership will not necessarily tally with official statistics on the size of the registered businesses. The table presents some interesting summary points.

- Among the innovation driven countries, the nascent entrepreneurial activity (NEA) is the highest in US followed by Norway, Ireland, Netherland, France and Australia. Italy, Japan and Portugal have the lowest rate of NEA. The highest total entrepreneurial activity (TEA) i.e. the sum of nascent entrepreneurship and the new business owner manager rate is reported to be the highest in Australia followed by Norway, US, Netherland, Ireland and Korea. Italy reports the lowest level of total entrepreneurial activity. The highest number of established business units (for more than 42 months) is observed in Korea, Finland and Netherland. US and Israel report the highest number of business closures in the past 12 months.

- Among the efficiency driven countries, the nascent entrepreneurial activity (NEA) is the highest in the South American countries of Peru, Chile, Mexico, Colombia and Argentina. On the other hand lowest level of NEA is reported in Malaysia and Russia. The highest total entrepreneurial activity (TEA) i.e. the sum of nascent entrepreneurship and the new business owner manager rate is reported to be the highest in the South American countries and in China as well. The highest number of established business units (for more than 42 months) is observed in Brazil, China and Peru. Chile and Peru report the highest number of business closures in the past 12 months.
- In the Factor driven countries, the nascent entrepreneurial activity (NEA) is the highest in Ghana and Uganda. The lowest level of NEA is reported in Egypt and Tunisia. The highest total entrepreneurial activity (TEA) i.e. the sum of nascent entrepreneurship and the new business owner manager rate is reported to be the highest in Ghana and Uganda. Saudi Arabia and Pakistan report a reasonable level of TEA. The lowest level of TEA is observed in Egypt and Tunisia. The highest number of established business units (for more than 42 months) is observed in Guatemala and Iran. Saudi Arabia and Pakistan report the lowest number of established business units.

Table 8: Measurement of entrepreneurial activity in GEM participating countries.

	Nascent Entrepreneurial Activity rate (NEA)	New Business Owner/Manager Rate (4-42 months) (NBO)	Nascent + New Business Owner Manager rate (TEA)	Established Business Owners (>42 months) EBO	Business Closure rate (Business closed in the last 12 months that has not continued) (BC)	Proxy Early Stage Business Survival Rate (EBO/TEA)	Proxy Business Churn rate BC/(NBO +EBO)
Innovation Driven Economies							
Australia	3.94	3.96	7.90	8.47	1.45	1.1	0.1
Belgium	2.55	1.25	3.80	2.69	.61	0.7	0.2
Denmark	1.83	2.18	4.01	5.56	1.27	1.4	0.2
Finland	2.39	3.37	5.76	9.44	1.43	1.6	0.1
France	3.82	2.11	5.93	2.44	1.30	0.4	0.3
Germany	2.48	1.75	4.23	5.69	.93	1.3	0.1
Ireland	4.40	2.53	6.93	8.55	1.19	1.2	0.1
Israel	3.25	2.59	5.84	3.12	2.48	0.5	0.4
Italy	1.30	1.05	2.35	3.70	1.07	1.6	0.2
Japan	1.51	1.84	3.35	7.36	1.07	2.2	0.1
Korea	1.82	4.73	6.56	11.18	1.26	1.7	0.1
Netherlands	3.97	3.35	7.32	9.03	.91	1.2	0.1
Norway	4.43	3.39	7.82	6.71	1.85	0.9	0.2
Portugal	1.88	2.59	4.47	5.44	1.55	1.2	0.2
Slovenia	2.24	2.42	4.65	4.94	1.11	1.1	0.2
Spain	2.20	2.14	4.34	7.72	1.34	1.8	0.1
Sweden	2.34	2.54	4.88	6.40	2.16	1.3	0.2
Switzerland	2.19	2.85	5.04	8.68	1.36	1.7	0.1
United Kingdom	3.23	3.28	6.51	6.37	1.34	1.0	0.1
United States	4.86	2.76	7.62	7.68	2.71	1.0	0.3
Efficiency Driven Economies							
Argentina	7.16	7.29	14.45	12.41	3.01	0.9	0.2
Brazil	5.94	11.68	17.62	15.26	3.03	0.9	0.1
Chile	11.37	5.73	17.09	5.99	4.01	0.4	0.3
China	4.87	9.70	14.57	13.77	3.41	0.9	0.1
China	4.87	9.70	14.57	13.77	3.41	0.9	0.1
Colombia	8.72	12.57	21.29	12.22	3.68	0.6	0.1
Croatia	4.06	1.64	5.70	2.90	1.64	0.5	0.4
Hungary	4.92	2.27	7.19	5.42	1.68	0.8	0.2
Latvia	5.69	4.13	9.83	7.64	2.59	0.8	0.2
Malaysia	1.42	3.59	5.01	7.86	1.65	1.6	0.1
Mexico	9.17	1.35	10.52	.42	4.44	0.0	2.5
Peru	22.35	5.84	28.19	7.21	6.74	0.3	0.5
Romania	3.31	1.09	4.40	2.08	2.00	0.5	0.6
Russia	2.24	1.71	3.94	2.79	.71	0.7	0.2
Taiwan	4.68	3.76	8.45	7.23	1.65	0.9	0.1
Turkey	3.73	5.08	8.81	10.73	3.38	1.2	0.2
Factor Driven Economies			.00				
Egypt	2.08	4.94	7.02	4.52	2.68	0.6	0.3
Ghana	10.93	24.40	35.33	35.51	17.58	1.0	0.3
Guatemala	8.31	8.39	16.70	6.65	3.60	0.4	0.2
Iran	4.80	7.70	12.51	12.16	4.13	1.0	0.2
Jamaica	5.51	5.12	10.64	6.90	6.39	0.6	0.5
Pakistan	**6.64**	**2.70**	**9.35**	**4.72**	**1.78**	**0.5**	**0.2**
Saudi Arabia	6.33	3.16	9.49	3.86	2.60	0.4	0.4
Tunisia	1.73	4.44	6.17	9.01	3.17	1.5	0.2
Uganda	10.67	21.96	32.64	27.71	23.84	0.8	0.5
Uruguay	7.79	4.08	11.87	7.24	2.43	0.6	0.2

Entrepreneurial Activity by Stages in Pakistan

Table 9 illustrates the proportion of respondents by stage of entrepreneurial activity in Pakistan.
In Pakistan 30.5% of working age individuals were not engaged in entrepreneurial activity and had no intention of starting a business within the next three years. A further 32% expected to start a business in the next three years, but were not actively trying to start a business or running an existing business. A further 18% were nascent entrepreneurs and an additional 19% were new business owner/managers.

Table 9: Proportion of respondents by stage of entrepreneurial activity in Pakistan

Are you, alone or with others, currently the owner of a business you help manage, self-employed, or selling any goods or services to others?	19.3%
Are you, alone or with others, currently trying to start a new business, including any self-employment or selling any goods or services to others?	18.0%
Are you, alone or with others, expecting to start a new business, including any type of self-employment, within the next three years?	32.2%
No Activity or intention	30.5%

Opportunity and Necessity Based Entrepreneurship Activity

One way of distinguishing between different types of entrepreneurial activity is the extent to which the activity is based on necessity (i.e. there are no better alternatives for work) or opportunity (where entrepreneurs may be exploiting the potential for new market creation).

From the GEM 2010 survey both opportunity motivated entrepreneurship rates (Opportunity TEA) and Necessity driven entrepreneurship rates (Necessity TEA) are presented side by side in Table 10. The Table shows that the levels of necessity entrepreneurship in 2010 are lower than levels of opportunity entrepreneurship in all participating countries except Macedonia and Egypt.

Table 10: Opportunity and Necessity Entrepreneurship in GEM Participating countries

	Opportunity TEA	Necessity TEA
Innovation Driven Economies		
Australia	6.07	1.45
Belgium	2.77	.36
Denmark	2.76	.30
Finland	4.34	1.03
France	4.17	1.47
Germany	2.83	1.07
Greece	3.97	1.53
Ireland	4.47	2.08
Israel	3.67	1.65
Italy	2.03	.31
Japan	2.10	1.20
Korea	3.91	2.52
Netherlands	6.13	.61
Norway	6.31	1.19
Portugal	3.06	.99
Slovenia	3.68	.76
Spain	3.14	1.09
Sweden	4.07	.65
Switzerland	4.09	.71
United Kingdom	5.19	.68
United States	5.18	2.16
Efficiency Driven Economies		
Argentina	9.00	5.15
Brazil	11.85	5.44
Chile	11.73	4.93
China	8.12	6.01
Colombia	12.13	8.15
Croatia	3.52	1.78
Hungary	5.69	1.40
Latvia	6.77	2.59
Macedonia	2.96	4.59
Malaysia	4.30	.61
Mexico	8.25	1.99
Peru	21.08	5.79
Romania	2.94	1.27
Russia	2.52	1.26
South Africa	5.38	3.19
Taiwan	4.95	2.54
Turkey	4.65	3.21
Factor Driven Economies		
Egypt	3.08	3.72
Ghana	20.97	12.51
Guatemala	7.25	2.45
Iran	7.06	4.67
Pakistan	**5.07**	**3.69**
Saudi Arabia	8.38	.94
Tunisia	4.36	1.45
Uganda	15.71	15.58
Uruguay	8.16	3.04

In the innovation driven countries the highest level of opportunity TEA is observed in the Netherlands, Norway, Australia and the UK. In the efficiency driven economies, the highest level of opportunity TEA is in Peru, Chile, Brazil and Mexico. In the Factor driven economies, Ghana, Uganda, Saudi Arabia and Uruguay have the highest level of opportunity TEA. The data show that generally, developing regions have higher numbers for necessity entrepreneurship than their developed region counterparts. This is obvious due to the lack of good job opportunities in most of the factor driven economies.

Male Verses Female Entrepreneurial Activity

Women enter into entrepreneurship for many of the same reasons as men: to support themselves and families, to enrich their lives with careers and financial independence etc. Yet there may be special reasons for female entrepreneurial activity. The findings suggest that women's participation in entrepreneurship varies significantly across economies, but is nearly always less than that of men. Table 11 presents a summary of Total early stage Entrepreneurial activity (TEA) rates by gender for all participating GEM countries including Pakistan. Fig. 5 shows the level of female and male participation in early-stage entrepreneurship, ranked by the percentage of women involved in TEA within the three economic groups.

In some high income countries, men are around twice as likely to be entrepreneurially active as women, for example the gender gap is very high in countries like, Korea, Norway, Ireland, Netherland and UK. On the other hand a narrower gender gap was reported Australia, Belgium, Italy, Switzerland and the US.

In the efficiency driven countries, there is a high gender gap in Turkey followed by Hungary, Taiwan and Chile etc. A lower gender gap is observed in Malaysia, Russia and Mexico. In the factor driven countries, the lowest level of women participation can be found in Pakistan, Iran, Saudi Arabia and Egypt. Across the three development levels, the factor-driven and efficiency-driven groups are similar on average, but the innovation-driven group has a lower average proportion of women entrepreneurs.

Figure 5: GEM Economies Ranked by Level of Female Participation in Total Early-Stage Entrepreneurship Activity (TEA) by Economic Group, 2010

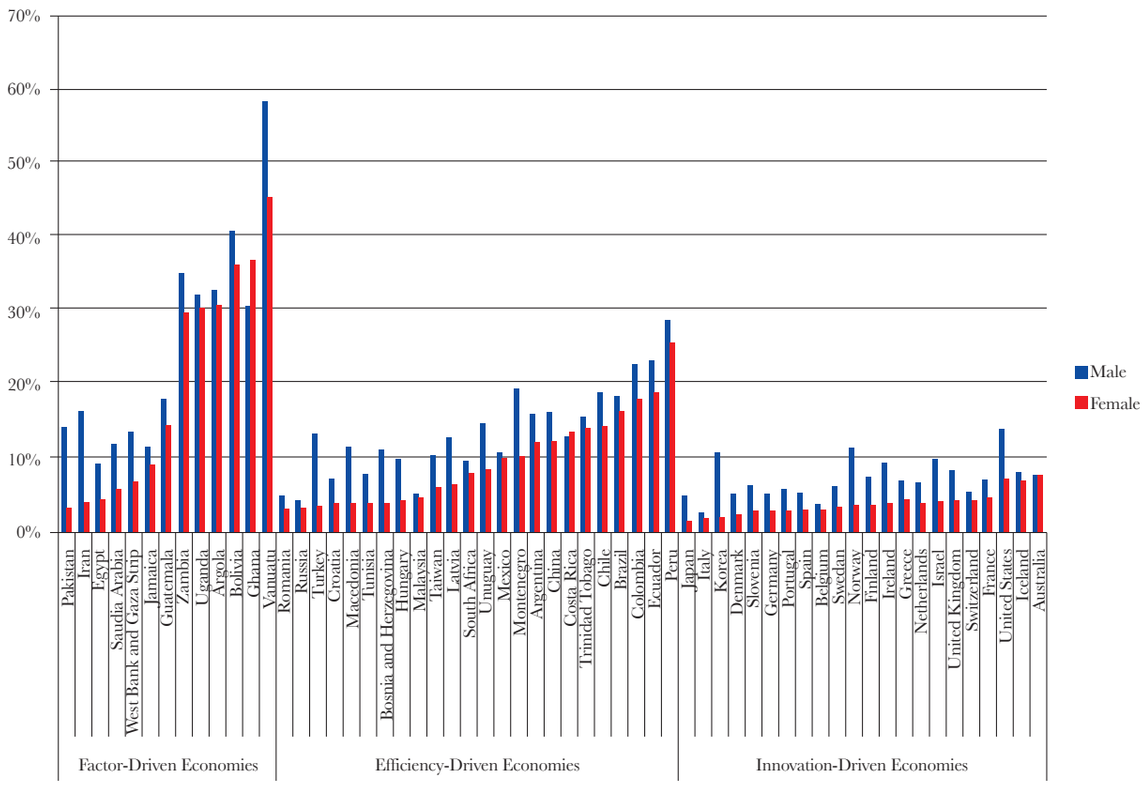


Table 12 presents a summary of established business ownership by gender in GEM participating countries in 2010. The gender gap in participation rates appear to be wider among established business owner-managers than among early-stage entrepreneurs in innovation driven economies. In efficiency driven countries the gender gap is also more in established businesses as compared to early stage entrepreneurs with the exception of Mexico, Peru, South Africa and Russia.

In the factor driven economies the gender gap is more in established businesses as compared to early stage entrepreneurs with the exception of Pakistan and Saudi Arabia.

Table 11: Total Early stage entrepreneurial activity by gender in Participating GEM Countries

	Male TEA Rate	Female TEA Rate
Innovation Driven Economies		
Australia	7.83	7.77
Belgium	4.02	3.32
Denmark	5.22	2.30
Finland	7.50	3.89
France	7.02	4.77
Germany	5.41	2.90
Greece	6.85	4.05
Ireland	9.52	3.94
Israel	7.01	4.38
Italy	2.71	2.01
Japan	5.05	1.53
Korea	10.98	2.06
Netherlands	10.12	4.35
Norway	11.48	3.81
Portugal	5.87	2.99
Slovenia	6.35	2.86
Spain	5.40	3.18
Sweden	6.24	3.49
Switzerland	5.60	4.47
United Kingdom	8.44	4.43
United States	8.18	7.01
Efficiency Driven Economies		
Argentina	16.16	12.33
Brazil	18.63	16.43
Chile	19.18	14.42
China	16.34	12.42
Colombia	23.00	18.37
Croatia	7.15	3.91
Hungary	10.13	4.27
Malaysia	5.10	4.80
Mexico	10.72	10.20
Peru	28.85	25.69
Romania	5.13	3.19
Russia	4.42	3.51
South Africa	9.57	8.14
Taiwan	10.48	6.26
Turkey	13.45	3.67
Factor Driven Economies		
Angola	32.85	31.01
Bolivia	40.89	36.46
Ecuador	23.53	19.02
Egypt	9.54	4.41
Ghana	30.78	37.07
Guatemala	18.09	14.70
Iran	16.43	4.14
Jamaica	11.77	9.24
Pakistan	**14.38**	**3.43**
Saudi Arabia	12.05	5.87
Tunisia	8.22	4.08
Uganda	32.22	30.46
Uruguay	15.00	8.69

Table 12: Established business ownership by gender

	Male EBO	Female EBO
Innovation Driven Economies		
Australia	11.66	5.27
Belgium	3.08	2.30
Denmark	7.58	3.51
Finland	12.72	6.10
France	3.06	1.89
Germany	7.19	4.16
Greece	22.33	6.66
Ireland	11.80	5.23
Israel	3.74	2.48
Italy	4.78	2.70
Japan	9.24	5.45
Korea	17.39	4.88
Netherlands	12.45	5.64
Norway	8.13	5.22
Portugal	7.95	3.04
Spain	10.32	5.04
Sweden	9.45	3.25
Switzerland	10.36	6.98
United Kingdom	8.67	4.10
United States	9.31	6.07
Efficiency Driven Economies		
Argentina	17.06	7.95
Brazil	17.75	12.89
Chile	8.12	3.92
China	16.58	11.00
Colombia	16.56	8.15
Croatia	4.65	1.17
Hungary	7.57	3.38
Malaysia	9.09	6.53
Mexico	.36	.48
Peru	8.13	6.33
Romania	2.08	2.08
Russia	2.63	2.94
South Africa	2.16	1.94
Taiwan	9.93	4.53
Turkey	17.82	3.56
Factor Driven Economies		
Angola	10.02	7.23
Bolivia	19.81	16.75
Ecuador	18.36	11.08
Egypt	7.85	1.08
Ghana	36.69	34.35
Guatemala	6.17	7.07
Iran	16.53	3.48
Jamaica	8.99	4.88
Pakistan	**8.36**	**.82**
Saudi Arabia	5.93	1.10
Tunisia	13.06	5.06
Uganda	29.72	25.91
Uruguay	9.71	5.02

Entrepreneurial Activity in Pakistani Provinces

Table 13 displays different measures of entrepreneurial activity in various regions of Pakistan.

Table 13: Different measures of entrepreneurial activity in various regions of Pakistan

Province	I expect to start a business in the next 3 years (future)	Nascent Entrepreneurial Activity Rate	New Business Owner-Manager Rate	Nascent + New Business Owner Manager Rate	Established Business Owners (>42 months)	Business Closure rate	Proxy for Early stage business survival rate	Proxy for business churn Rate of Business Closure to Ownership
	FUT	NEA	NBO	NEA+NBO	EBO	BC	EBO/TEA	BC/(NBO+EBO)
Sindh	38.3	4.6	0.57	5.17	1.72	3.25	0.3	1.4
Punjab	29.2	5.6	3.02	8.61	6.22	2.91	0.7	0.3
Baluchistan	25.6	26.7	2.22	28.89	4.44	10.53	0.2	1.6
Khyber Pakhtoon Khowa	24.4	6.0	1.88	7.89	3.01	0.38	0.4	0.1

In Sindh, the number of people expected to start the business were highest as compared to the other provinces of Pakistan. Punjab displays an interesting pattern of entrepreneurial activity; it has the highest new business owner manager rate and a lower business closure rate. Surprisingly Baluchistan reports the highest nascent entrepreneurial activity but a very high business closure rate. Khyber Pakhtoon Khowa reports the lowest business closure rate. The ratio of EBO to TEA, a proxy of early stage business survival is relatively high in Punjab. The rate of business closure to business ownership is relatively high in Baluchistan.

The total early stage entrepreneurial activity in the various provinces of Pakistan is presented in Table 14. The highest TEA rate is reported in Baluchistan followed by Punjab, Khyber Pakhtoon Khowa. Sindh reports the lowest level of total early stage entrepreneurial activity.

Table 14: Total Early Stage Entrepreneurial Activity in Pakistani Regions in 2010

Sindh	5.5%
Punjab	8.4%
Baluchistan	31.1%
Khyber Pakhtoon Khowa	7.5%

Table 15, displays male and female early stage entrepreneurial activity (TEA) rates by region. It shows that Baluchistan has the highest rate of Male TEA followed by Punjab. The female TEA rate is the highest for Punjab followed by Sindh.

Table 15: Male and Female Total early stage Entrepreneurial Activity in Pakistani Regions, 2010

Province	Male	Female
Sindh	8.3%	3%
Punjab	12.1%	5%
Baluchistan	67.0%	2%
Khyber Pakhtoon Khowa	14.7%	0%

Table 16 and 17, display male and female early stage entrepreneurial activity (Opportunity TEA) based on opportunity and necessity entrepreneurship. Baluchistan reports the highest Male TEA rates based on opportunity entrepreneurship followed by Khyber Pakhtoon Khowa. Punjab reports the highest Male Tea rates.

The highest Male TEA rates based on necessity entrepreneurship are also reported in Baluchistan. Punjab and Sindh report Female TEA rates based on necessity entrepreneurship.

Table 16: Male and Female Total early stage Entrepreneurial Activity in Pakistan Regions, 2010 based on opportunity entrepreneurship

Province	Opportunity TEA	
	Male	Female
Sindh	4.1	1.95
Punjab	5.7	2.38
Baluchistan	42.5	2.00
Khyber Pakhtoon Khowa	11.8	0.00

Table 17: Male and Female Total early stage Entrepreneurial Activity in Pakistan Regions, 2010 based on opportunity entrepreneurship

Province	Necessity TEA	
	Male	Female
Sindh	3.4	0.8
Punjab	5.5	2.0
Baluchistan	25.0	0.0
Khyber Pakhtoon Khowa	2.9	0.0

2.4 Entrepreneurial Aspirations

Research shows that higher levels of entrepreneurial aspirations such as for firm growth and/or job creation are likely to lead to positive results, which implies that efforts intended to increase growth aspirations and associated abilities will most likely succeed[17]. The potential of entrepreneurial activity to promote growth and new jobs also reflects the types of businesses being pursued such as in new industries and/or markets, which possess greater potentials.

Across the world, the majority of businesses expect little or no growth. According to the 2009 GEM Global Report, expectations of high growth are rare among nascent and new entrepreneurs. Across 47 economies, only 70% of all start-up attempts expected any job creation at all. Only 14% of all start up attempts expected to create 20 or more jobs.

To identify individuals who expected to create a relatively high number of jobs, GEM created a variable which measures the percentage of all early stage entrepreneurs who have created more than ten jobs and who expect more than 50% of growth in jobs in the next five years. The results are illustrated in Table 18 for early stage entrepreneurs and established business owner managers. Among the innovation driven countries, US, Japan and Ireland have the highest percentage of early stage entrepreneurs who have created more than ten jobs and who expect 50% growth in the next five years. Israel and Sweden have the highest number of established business managers who have the above mentioned attributes. In the efficiency driven countries, Romania, Taiwan and Turkey have the highest percentage of early stage entrepreneurs who have created more than ten jobs and who expect 50% growth in the next five years. Turkey and Taiwan have the highest number of established business managers who have the above mentioned attributes. In the factor driven countries, Saudi Arabia, Uruguay and Egypt have the highest percentage of early stage entrepreneurs who have created more than ten jobs and who expect 50% growth in the next five years. Saudi Arabia and Egypt have the highest number of established business managers who have the above mentioned attributes.

Table 18 also shows the proportion of early stage entrepreneurs and established business owner managers who state that they operate in new product markets. In the Innovation driven economies, European countries like Denmark, Ireland, France, Sweden and Switzerland have the highest TEA who operate in new product markets. On the other hand Denmark, France, Sweden and Italy have the highest EBO who operate in new product markets. In the efficiency driven economies, Chile, Peru and South Africa have the highest TEA who operate in new product markets. Chile and Mexico have the highest EBO who operate in new product markets. In the factor driven economies, Pakistan and Uruguay have the highest TEA who operate in new product markets. Pakistan has the highest EBO who operate in new product markets.

The third variable in Table 18 illustrates the percentage of early stage entrepreneurs and established business owner managers who were active in high or medium tech sectors. US, UK, Netherland and Germany have the highest percentage of TEA who are active in medium and high tech sectors. US, Switzerland and Belgium have the highest percentage of EBO who are active in medium and high tech sectors. Hungary and Romania have the highest %age of TEA and EBO who are active in medium and high tech sector's among the efficiency driven economies. Iran and Uruguay have the highest %age of TEA and EBO who are active in medium and high tech sector's among the factor driven economies.

The final variable shows the proportion of early stage entrepreneurs and established business owners who have more than 25% of their customers from outside the country. Sweden, US, Switzerland and Germany, Belgium, Norway and Portugal have the highest %age of TEA and EBO who have more than 25% of their customers from outside the country among the innovation driven economies. Turkey and Mexico have the highest %age of TEA and EBO who have more than 25% of their customers from outside the country among the efficiency driven economies.

Uruguay, Saudi Arabia and Pakistan have the highest %age of TEA and EBO who have more than 25% of their customers from outside the country among the efficiency driven economies.

Table 18: Measures of entrepreneurial aspiration in GEM participating countries, 2010

	Percentage of entrepreneurs who have created > 10 jobs and expect 50% growth in 5 years		Percentage of early stage entrepreneurs and established business managers who operate in new product markets		Percentage of early stage entrepreneurs and established business managers active in medium and high tech sectors		Percentage of early stage entrepreneurs and established business managers with one in four foreign customers	
	TEA	**EBO**	**TEA**	**EBO**	**TEA**	**EBO**	**TEA**	**EBO**
Innovation Driven Economies								
Australia	16.15	4.72	27.72	12.88	15.82	12.46	54.12	56.15
Belgium	10.12	4.29	25.31	23.26	8.13	14.55	46.53	54.01
Denmark	16.04	1.09	45.46	21.18	6.65	11.05	17.75	35.80
Finland	8.72	1.53	18.17	5.45	8.47	6.94	20.05	27.59
France	17.43	4.91	33.80	21.35	5.09	8.46	44.59	46.54
Germany	13.60	4.62	25.57	12.52	10.21	8.36	50.79	56.03
Ireland	20.89	2.53	36.75	12.54	9.47	9.22	41.24	30.02
Israel	15.21	7.57	24.39	10.81	3.13	6.03	41.09	36.76
Italy	11.05	.67	22.20	19.87	7.78	10.83	36.92	33.33
Japan	21.23	3.14	19.31	4.49	4.02	4.24	15.23	11.39
Korea	16.64	1.80	12.13	9.09	3.68	4.65	31.38	18.47
Netherlands	15.65	4.23	23.07	11.56	13.34	12.75	34.85	35.69
Norway	20.74	2.07	30.54	12.87	1.94	3.57	51.93	55.38
Portugal	8.76	1.88	19.63	5.95	4.59	6.13	50.58	51.31
Spain	5.46	.86	18.29	6.84	9.38	9.07	21.22	18.30
Sweden	11.69	5.81	29.93	20.46	9.23	9.36	73.44	67.36
Switzerland	9.38	.00	29.70	12.77	6.00	15.52	50.70	60.33
United Kingdom	12.86	1.55	23.46	11.28	11.58	9.47	21.02	24.59
United States	23.25	2.27	27.85	13.96	10.37	13.58	68.58	69.01
Efficiency Driven Economies								
Argentina	13.38	3.70	25.06	14.55	4.03	8.34	18.81	13.41
Brazil	9.80	3.41	10.29	3.34	5.99	3.64	6.61	9.65
Chile	22.62	6.34	51.65	36.68	4.32	5.99	39.00	30.56
China	16.46	2.54	14.42	14.32	.58	.67	17.82	13.97
Colombia	21.37	8.38	26.11	13.60	3.10	3.10	24.97	19.19
Hungary	17.44	4.38	16.55	5.11	11.06	7.37	27.88	30.51
Malaysia	4.90	.90	7.98	16.21	2.21	2.68	24.17	31.37
Mexico	7.42	7.00	22.82	39.35	1.17	.00	47.02	37.46
Peru	12.57	6.26	41.18	22.17	1.63	4.63	23.84	20.74
Romania	29.33	3.76	22.38	5.90	1.42	11.26	32.79	37.79
Russia	15.03	7.87	13.86	7.15	4.85	1.52	1.94	5.52
South Africa	20.58	7.97	35.67	18.54	1.61	.00	37.49	31.80
Taiwan	24.88	8.65	26.45	20.75	6.81	4.08	19.56	19.81
Turkey	27.16	11.73	26.37	15.88	2.60	1.03	55.45	49.68
Factor Driven Economies								
Egypt	13.82	6.34	14.64	7.34	1.04	.46	14.72	10.69
Ghana	8.77	6.22	16.12	7.36	.00	.00	6.93	5.39
Iran	12.48	2.56	14.41	3.20	3.07	4.75	13.75	11.56
Pakistan	**3.48**	**2.13**	**32.08**	**17.05**	**1.25**	**.78**	**19.69**	**20.43**
Saudi Arabia	28.04	27.21	15.44	12.77	1.52	2.67	21.51	36.97
Tunisia	10.06	5.37	12.38	10.09	.83	4.33	8.20	4.56
Uganda	5.19	4.02	19.03	6.66	.69	.90	15.05	18.14
Uruguay	21.01	2.74	31.63	14.72	4.19	7.11	32.44	36.50

There is some degree of overlap between these measures of aspiration. For example entrepreneurs with significant foreign trade are more likely to be engaged with new product-market combinations, and to have high job growth expectations. However there appears to be no association between whether an entrepreneur was working in a high or medium technology sector and the other measures of aspiration in Table 18.

2.5 Impact of Global Economic Down Turn

In 2010, the GEM survey carried questions on the attitudes of entrepreneurs to startup in a recession. While starting a business in Pakistan has got tougher for most people in Pakistan, about 37% of early stage entrepreneurs and 36% of established business owners think that the global downturn has no impact and there are prospects for opportunities.

In Pakistan, 9% of early stage entrepreneurs and 7.8% of established business owner-managers thought there were opportunities for their business as a result of the global slowdown as described in Table 19.

Table 19: Pakistani Entrepreneurs views on the impact of global recession on their own business, 2010

The global economic slowdown created	Nascent Entrepreneurs and New Business Owners (TEA)	Established Business Owners (EBO)
More business opportunities	9.1%	7.8%
Somewhat more business opportunities	13.2%	12.8%
No impact	14.9%	14.9%
Somewhat fewer business opportunities	43.0%	46.1%
Fewer business opportunities	19.8%	18.4%

2.6 The Environment for Entrepreneurship in 2010

In 2010, 36 experts in different aspects of the socio-economic environment for entrepreneurship were interviewed across Pakistan using a structured questionnaire. They were selected from different groups: knowledgeable practitioners, resource providers, academics and observers across nine different entrepreneurial framework conditions (EFCs), which serve as the key stakeholders for a well-functioning business environment.

Experts were asked to rate various statements on a 5 point Likert scale that represent different aspects of each entrepreneurial framework conditions (EFCs). Factor Analysis of these expert inputs was conducted on the data to produce a measure of the strength of each underlying EFC.

Figures 6, 7 and 8 present the scores for each EFC for Pakistan and compares it with groups of selected countries in the Innovation driven, efficiency driven and factor driven economies, derived from the responses of experts in those countries.

Figure 6: Mean Scores Awarded by National Experts to Entrepreneurial Framework Conditions in Pakistan as compared to factor driven economies

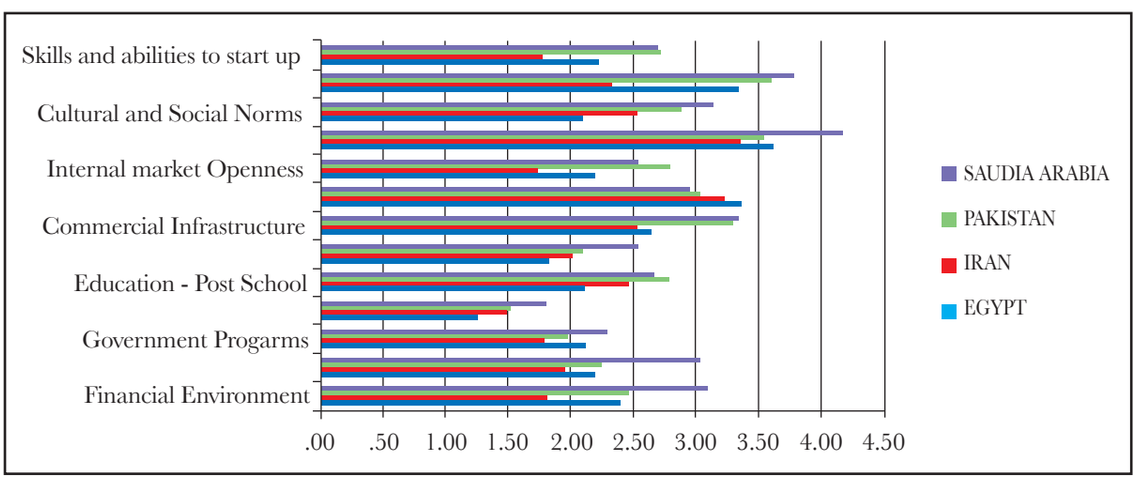


Figure 7: Mean Scores Awarded by National Experts to Entrepreneurial Framework Conditions in Pakistan as compared to efficiency driven economies

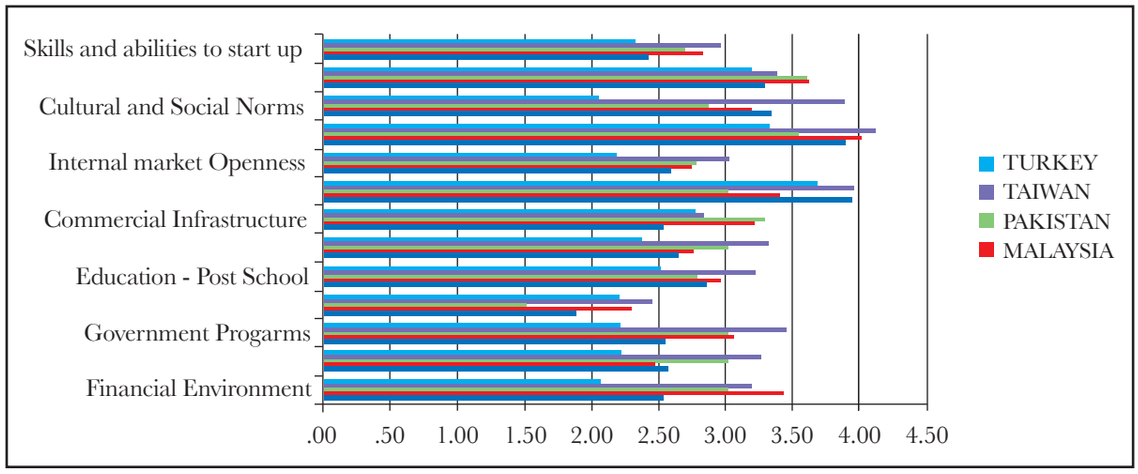


Figure 8: Mean Scores Awarded by National Experts to Entrepreneurial Framework Conditions in Pakistan as compared to innovation driven economies

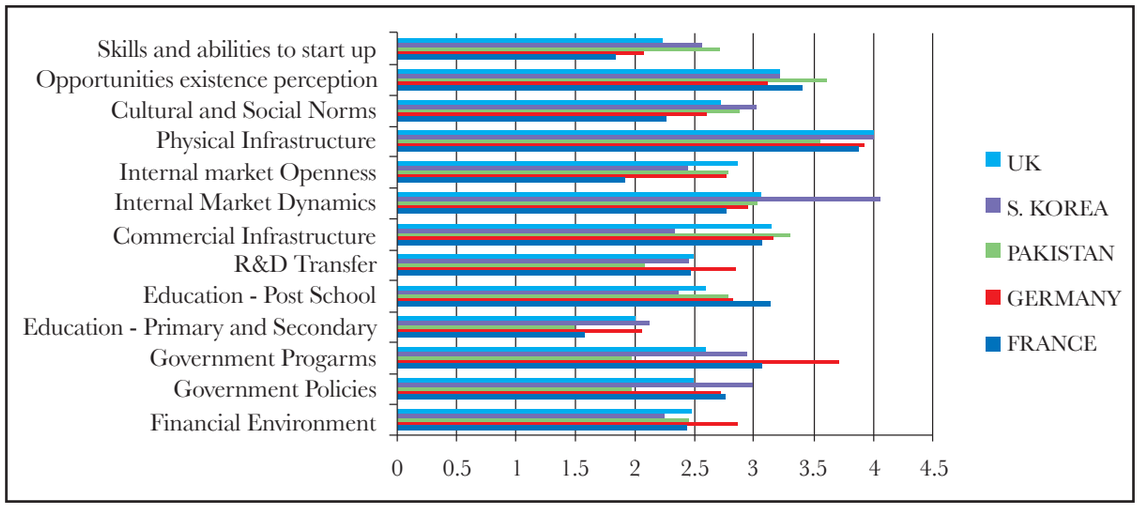


Table 20 shows that all countries including the developed ones, do relatively poorly on entrepreneurship education in primary and secondary schools. Other key differences observed are as follows.

- In the factor driven countries, Pakistan is compared with countries like Iran, Egypt and Saudi Arabia. Pakistan scores significantly higher on skills and abilities to startup, internal market openness and post school education. Saudi Arabia scores higher on perception of opportunities, cultural and social norms, physical and commercial infrastructure, R&D transfer, primary and secondary education, governmental programs, policies and financial environment. Egypt scores high on the internal market dynamics.
- In the efficiency driven countries, Pakistan is compared with countries like, Turkey, Taiwan, Malaysia and China. Taiwan scores higher on all parameters except perception of opportunities, commercial infrastructure and financial environment. Malaysia scores highest on the perception of existence of new opportunities and financial environment. China scores reasonably high on cultural and social norms, physical infrastructure, internal market dynamics and post school education
- In innovation driven countries, Pakistan is compared with selected set of developed countries. South Korea scores high on cultural and social norms, physical infrastructure, internal market dynamics, primary and secondary school education and governmental programs. Germany scores high on R&D transfer, Governmental programs and in terms of financial environment. France scores high on post school education. Interestingly, Pakistan scores high on perception of new opportunities and the skills and abilities to start a new business.

Table 20 displays the scores for each item used to create the Government Programs factor score. It shows that Germany, Ireland, Norway, Malaysia, Mexico and Tunis score high on the role of government programs in promoting entrepreneurship in their countries. Pakistan, Iran and Egypt score low in these areas.

Table 20: National Expert Average Scores for Selected Items Related to Government Programs in All GEM Nations (Scale 1 to 5, 1 = completely false; 5 = completely true)

	In my country, a wide range of government assistance for new and growing firms can be obtained through contact with a single agency	In my country, science & technology parks, business incubators provide effective support for new and growing firms	In my country, there are an adequate number of government programs for new and growing businesses	In my country, the people working for government agencies are competent and effective in supporting new and growing firms	In my country, almost anyone who needs help from a government program for a new or growing business can find what they need	In my country, government programs aimed at supporting new and growing firms are effective
Innovation driven economies						
Finland	2.43	3.51	3.83	2.47	2.69	2.40
France	2.87	4.07	3.40	3.25	2.53	2.79
Germany	3.30	4.23	4.23	3.69	3.38	3.38
Greece	1.39	2.11	2.56	1.69	2.09	2.03
Iceland	2.47	3.39	2.62	3.41	2.77	2.75
Ireland	2.87	3.75	3.42	3.50	2.87	3.13
Israel	1.87	3.33	3.00	2.61	2.14	2.48
Italy	1.94	2.97	2.11	2.47	1.89	2.09
Japan	1.70	2.98	2.52	2.34	2.16	2.43
Norway	2.94	3.39	3.06	2.56	2.69	2.57
Portugal	2.63	3.49	2.97	2.47	2.21	2.29
Slovenia	2.74	3.09	2.76	2.49	2.49	2.44
Spain	2.49	3.14	2.47	2.88	2.05	2.34
Sweden	2.03	3.57	3.09	2.65	2.12	2.38
Switzerland	2.88	4.03	3.28	3.32	3.18	3.28
UK	2.64	3.53	2.71	2.28	2.11	2.46
USA	2.47	3.07	2.87	3.00	2.52	2.72
Efficiency Driven Economies						
Argentina	1.89	2.74	2.47	2.59	2.06	2.32
Bosnia & H	1.79	2.32	1.77	2.09	1.92	2.09
Brazil	1.77	3.14	2.22	2.31	1.97	2.66
Chile	2.31	2.72	2.75	3.00	2.51	2.48
China	2.08	3.54	2.28	2.69	2.14	2.86
Colombia	2.68	3.24	3.03	3.37	2.86	2.76
Hungary	1.73	2.53	2.49	2.16	2.03	1.97
Latvia	2.18	2.94	2.67	2.48	2.48	2.22
Macedonia	2.50	2.64	2.16	2.47	2.60	2.29
Malaysia	3.00	3.49	3.51	2.70	2.53	3.00
Mexico	3.03	3.46	3.24	3.09	3.03	2.74
Perú	2.00	2.02	2.29	2.74	2.33	2.45
Russia	1.75	2.53	2.76	1.83	1.83	1.97
South Africa	1.84	2.71	2.68	1.64	1.86	1.94
Taiwan	2.94	4.12	3.47	3.34	3.00	3.47
Turkey	2.53	2.67	2.58	2.06	1.58	1.92
Factor Driven Economies						
Egypt	2.29	2.18	2.40	2.00	1.83	2.28
Ghana	1.89	2.20	2.33	2.92	1.89	2.31
Iran	1.50	2.06	2.19	1.67	1.64	1.78
Pakistan	**1.56**	**2.17**	**2.16**	**2.00**	**1.88**	**1.97**
Saudi Arabia	2.29	2.03	2.67	2.21	2.24	2.44
Tunisia	3.61	3.75	3.94	3.08	3.31	3.31
Uganda	1.82	2.61	2.50	2.34	1.54	2.03

Table 21 displays the scores for each item used to create the Cultural and Social Norms factor score. This highlights the perceptions of experts regarding the impact of culture and on encouraging entrepreneurship and the risk taking culture in their respective countries. US, Israel, China, Malaysia, Mexico, Taiwan, Saudi Arabia and Tunis score high on the role of national culture in promoting entrepreneurship. Pakistan, Iran and Egypt score lower on this account.

Table 21: National Expert Average Scores for Items Related to Cultural and Social Norms in All GEM Countries (Scale 1 to 5, 1 = completely false; 5 = completely true)

	In my country, the national culture is highly supportive of individual success achieved through own personal efforts	In my country, the national culture emphasizes self-sufficiency, autonomy, and personal initiative	In my country, the national culture encourages entrepreneurial risk-taking	In my country, the national culture encourages creativity and innovativeness	In my country, the national culture emphasizes the responsibility that the individual (rather than the collective) has in managing his or her own life
Innovation Driven Economies					
Finland	2.81	3.36	2.33	3.00	3.00
France	2.13	2.33	1.87	2.53	2.47
Germany	3.13	2.50	2.08	2.75	2.97
Greece	2.86	2.56	2.53	2.31	2.58
Iceland	3.65	4.32	3.68	3.94	3.97
Ireland	3.32	2.97	2.88	3.23	2.85
Israel	4.04	4.00	3.92	4.25	3.61
Italy	2.14	2.31	2.08	2.61	2.47
Japan	2.80	2.39	1.77	2.25	2.18
Norway	2.77	3.06	2.06	2.46	2.28
Portugal	1.81	2.03	1.97	2.53	2.08
Slovenia	2.14	2.19	1.92	2.31	2.17
Spain	2.73	2.28	1.85	2.20	2.38
Sweden	2.25	2.44	2.11	2.89	2.25
Switzerland	2.94	3.17	2.40	3.06	3.69
UK	2.93	2.73	2.38	2.88	2.72
USA	3.89	3.89	3.83	3.78	3.53
Efficiency Driven Economies					
Argentina	2.97	2.89	2.53	2.74	2.75
Bosnia & H	2.25	2.22	2.14	2.40	2.40
Brazil	3.00	2.69	2.14	2.69	2.72
Chile	2.91	2.69	2.29	2.33	2.69
China	3.63	3.46	2.91	3.31	3.43
Colombia	3.58	3.33	2.64	3.06	3.26
Costa Rica	2.92	2.51	2.16	2.54	2.55
Croatia	2.38	2.36	2.38	2.62	2.36
Hungary	2.44	2.31	2.20	2.49	2.50
Latvia	3.35	3.12	2.66	3.22	3.00
Macedonia	2.35	2.45	2.21	2.63	2.59
Malaysia	3.49	3.17	3.00	3.24	3.12
Mexico	3.56	3.39	3.06	3.08	3.43
Perú	3.26	3.13	2.74	3.17	3.11
Russia	2.19	2.54	2.40	3.03	2.33
South Africa	2.67	2.44	2.28	2.67	2.44
Taiwan	4.20	4.00	3.62	3.92	3.86
Turkey	2.56	2.14	1.69	1.83	2.11
Factor Driven Economies					
Egypt	2.61	2.14	1.89	1.78	2.08
Ghana	3.28	3.06	2.68	3.14	3.14
Guatemala	2.86	2.42	2.31	2.53	2.67
Iran	2.42	2.81	2.06	2.33	3.06
Pakistan	**3.21**	**2.91**	**2.64**	**2.78**	**2.81**
Saudi Arabia	3.45	3.19	3.00	2.87	3.28
Tunisia	3.53	3.06	2.72	3.08	3.31
Uganda	3.03	2.80	2.74	2.91	3.23

Table provides an overview of the results on each Entrepreneurship Factor Condition (EFC) for the 54 economies participating in the NES in 2010, organized into the three economic development groups. This table identifies the top three items with the lowest and highest scores within each economy.

Table shows that many economies share both positive and negative elements. For example, fifty economies evaluate physical infrastructure positively, including every innovation-driven economy. Another EFC with many positive evaluations is the commercial and legal infrastructure; exceptions are exhibited in three Asian economies (China, Taiwan and the Republic of Korea), which evaluate this factor negatively. In 46 countries, education and training in primary and secondary school is one of the three worst-performing EFCs. Another entrepreneurial framework condition that has the lowest scores is national policy with regard to regulation of new and growing firms; Finland is the only economy where experts evaluate this EFC positively.

Table No 22: Entrepreneurship Framework Conditions
(Three Valued Most Positive (+) and Three Most Negative (-), Per Country)

1 Finance	4a Education - Prim. and Second.	7a Internal Market - Dynamics
2a Nat. Policy - General Policy	4b Education - Post-School	7b Internal Market - Openness
2b Nat. Policy - Regulation	5 R&D Transfer	8 Physical Infrastructure
3 Government Programs	6 Commercial Infrastructure	9 Cultural and Social Norms

	1	2a	2b	3	4a	4b	5	6	7a	7b	8	9
Factor-Driven Economies												
Angola				-	-	+	-		+			+
Bolivia		-			-	+	-		+		+	
Egypt		+			-		-		+		+	-
Ghana		-		-		-	+	+			+	
Guatemala		-		-	-	+		+			+	
Iran				-	-				+	-	+	+
Jamaica	-		-				-	+			+	+
Pakistan		**-**		**-**	**-**			**+**	**+**		**+**	
Uganda			-		-	+	-		+		+	
Vanuatu		-	-				+	-		+		+
West Bank and Gaza Strip					-	-			+	+	-	+
Zambia	-				-		-	+	+	+		
Efficiency- Driven Economies												
Argentina	-	-	-			+		+			+	
Bosnia and Herzegovina		-	-	-				+	+		+	
Brazil		-	-		-				+		+	+
Chile					-	+	-	+	-		+	
China	-				-			-	+		+	+
Colombia	-				-	+	-				+	+
Costa Rica	-		-		-	+		+			+	
Croatia		-		-			+	+	-	+		
Ecuador		-		-	+	-	+			+		
Hungary			-		-	+			+		+	
Latvia	-		-	-		+		+			+	
Macedonia	-				-	+	-	+			+	
Malaysia	+		-		-				+	-	+	
Mexico		-		-	+				-	+	+	
Montenegro			-		-	+			+	-	+	
Peru				-	-		-	+			+	+
Russia	-				-		-	+	+		+	
South Africa				-	-		-	+	+		+	
Taiwan		-			-			-	+		+	+
Trinidad and Tobago		-			-	+	-	+			+	
Tunisia		+			-		-		+	-	+	
Turkey	-							+	+	-	+	-
Uruguay	-			+	-	+			-		+	

Innovation-Driven Economies												
Finland		+		-		-	+		-	+		
France		+			-	+				-	+	-
Germany			-	+	-			+			+	-
Greece	-	-	-					+			+	+
Iceland	-				-				+	-	+	+
Ireland	-			+	-			+			+	
Israel		-	-		-			+			+	+
Italy		-	-		-	+			+		+	
Japan	-	+	-		-				+		+	
Republic of Korea	-	+			-			-	+		+	
Norway	+	-			-			+		-	+	
Portugal			-		-	+		+			+	-
Slovenia					-			+	+		+	-
Spain	-		-		-			+	+		+	
Sweden		-		-		-	+	+		+		
Switzerland				+	-			+	-	-	+	
United Kingdom	-				-		-	+	+		+	
United States	-		-		-			+			+	+

Source: GEM National Expert Survey (NES)

Chapter 3: Conclusions and Implications

GEM Pakistan 2010 results offer the first in-depth review of individual entrepreneurial characteristics of the adult (18-64) population in the country along with an evaluation of the national environmental context in which entrepreneurship takes place. Assessments of Pakistan's needs to improve overall business climate and entrepreneurial environment in particular almost certainly emphasize (a) reinventing the role of government ensuring security and the rule of law (b) removing the instruments of rent-seeking (c) moving away from the current focus on project based government planning, production, and mercantilism to a more market and commerce-based approach.[18] The new approach is said to be more aligned with globalization, creativity, and innovation Planning Commission of Pakistan, "A study of Entrepreneurship and Innovation[19].

The key issues emerging from the GEM Pakistan study results include:

- The number of people in Pakistan who have a positive attitude towards entrepreneurship is less than the average of its factor-driven peer countries. However, it is higher than the average figures of both more developed innovation and efficiency driven economies. Moreover, the male population has a relatively more positive attitude towards entrepreneurship in Pakistan than as compared to the female population. Public policy will need to place more emphasis on generating higher level of interest in general and the female population in particular.
- Total early stage Entrepreneurial Activity or TEA rate (the sum of the nascent entrepreneurship rate and the new business manager rate) in Pakistan was 9.08 %. This is lower than the average TEA rates for the factor driven economies (22.8 %) and efficiency driven economies (11.7 %). About 5% of Pakistanis were involved in opportunity based early stage entrepreneurial activity. This rate is considerably less than the average of factor driven (8.8%) and efficiency driven countries (7.26%). The male TEA rate in Pakistan is more than four times that of the female TEA rate. The gender gap is significantly pretty higher as compared to other factor and efficiency driven countries. This also needs special attention by the policy makers.
- The Established Business Ownership (EBO) rate in Pakistan was 4.7 %. This is lower than the average EBO rates for Pakistan's peer factor driven economies (12.6 %), as well as efficiency driven (7.6 %) and innovation driven (7.0 %) economies.
- According to the survey, Pakistani population's new business ownership rate (owner managers of a business that was between 3 to 42 months old) was 2.7%. This rate is considerably less than the average of factor driven (11.8 %) and efficiency driven countries (5.2%). It is almost equal to the innovation driven economies rate (2.7 %).
- In Pakistan early stage entrepreneurs and business managers have low aspirations to grow as compared to most other GEM participating countries. The proportion of early stage Pakistani entrepreneurs reporting new product/market combinations and with at least 25% foreign customers is above the average of factor driven countries. Entrepreneurship education can play a vital role in enhancing the aspirations and intentions of starting new ventures. The higher the level of education the greater is the percentage of business owners. As education levels increase, the knowledge and skill level ratings increase, whilst the fear of failure as an entrepreneur diminishes.
- In Pakistan 27.73% of the total working age population (including those entrepreneurially active) expressed opinion that fear of failure would prevent them from starting a business. The fear of failure in the Pakistani population is less than the average of the factor driven economies. This is a positive finding and the policy makers have to capitalize on this by enhancing entrepreneurship training and support systems.
- In Pakistan, 9.1% of early stage entrepreneurs and 7.8% of established business owner-managers thought there were more opportunities for their business as a result of the global economic slowdown. A significant 21.9% of Pakistani early stage entrepreneurs thought that starting a business was more difficult than a year ago. However 29% of Pakistani established business owners thought that starting a new business was more difficult than a year ago.
- Experts on entrepreneurship in Pakistan gave government programs significantly lower ratings than the factor and efficiency driven countries. Cultural and social norms were also more negative for entrepreneurship in Pakistan than the other factor and efficiency driven countries.

Besides the challenging issues and developmental gaps identified by the GEM Pakistan research, salient policy implications of the study are:

Entrepreneurship awareness and research: One of the key implication of it is hoped that the GEM Pakistan research would be that not only it will create awareness of the importance of entrepreneurship among policy makers, academics and general public, but will also provide a solid basis to launch new academic and industrial research projects thereby significantly enriching our understanding of the state-of-entrepreneurship in the country and related challenges that need to be overcome. More specifically areas of interest, the acquired GEM data sets will lead to exploring, include: comparative conditions for entrepreneurship among member countries, investigating changing environmental conditions for entrepreneurship over time, regional differences within Pakistan, institutional structures, human and social capital facilitating or blocking entrepreneurship, longitudinal studies following the same entrepreneurial respondents over time, investigations linking GEM data to other data sources, links between the individual level (the entrepreneur) and society (i.e. growth in GDP), arrangement for funding the entrepreneurial venture and business angles, nascent entrepreneurship and business ownership, corporate entrepreneurship and independent start-ups, and gender or ethnicity issues.

Some of the potential users of GEM Pakistan results include: Government organizations such as Planning Commission of Pakistan, Ministry of Youth Affairs, Ministry of Economic Affairs, Ministry of Rural Development, SMEDA, National Productivity Organization, and the Export Promotion Bureau among others. Academic beneficiaries belonging to universities and research organizations include centers of excellence in entrepreneurship, academic researchers in business and economics and other social scientists, doctoral and

post graduate students. Additionally, business and civic organizations including local chambers of commerce and industry can equally benefit from this work.

Entrepreneurship and Education: Pakistan's overall primary and secondary school education system is seen as a system of rote learning where risk-taking is discouraged. The entrepreneur is a risk-taker; therefore, the high school system needs to take this into account to nurture entrepreneurs of the future. The high school education system may consider introducing creativity and entrepreneurial orientations in the curriculum. College and university education is critical to the future of entrepreneurship within Pakistan. An increase in education level increases the knowledge and skill level, while the fear of failure as an entrepreneur diminishes. At the same time Pakistani universities are producing large numbers of IT and engineering graduates and there is a great opportunity to follow the footsteps of India and China to promote IT based entrepreneurship among the graduating students by providing an enabling entrepreneurial environment. Being an agro based economy and with dozens of agriculture universities, training centers and research institutes there is a huge potential in starting an agro based entrepreneurial revolution. The institutions have to be mobilized in imparting entrepreneurial education in the areas of forestry, organic farming, bee keeping, poultry farming, livestock, sugar cane, cotton, biotechnology and textile etc.

Youth Entrepreneurship and Employment: With a bulge in youth population and an urgent social need for job creation when viewed in light of several positive entrepreneurial and pro-business attributes of the population identified in this research, a new cadre of young entrepreneurs needs to be developed. If successful this has the potential of creating jobs and economic development opportunities in the country. Therefore, there is a strong need for entrepreneurship awareness and education programs targeting youth, starting from pre-high school and particularly as part of engineering and science programs in the polytechnic institutes and universities of the country. The training and education has to be designed in a way to prepare individuals who can pursue entrepreneurship when needed or when the opportunity strikes. The rural population is the backbone of the agro based economy of Pakistan. Special focus and emphasis has to be made to tap this huge potential. The agriculture universities can play a pivotal role in promoting entrepreneurship among the rural youth.

Provision of Business Support Mechanisms: Overall, entrepreneurial activity in Pakistan has tacked the MENA region averages in 2010. However there is evidence of a challenge among established business owners a s manifested in lower opportunity perception, lower perceived merit of starting a business as a career choice and lower perceived media coverage of successful entrepreneurs. There is also plenty of evidence that it is more difficult for nascent entrepreneurs for finding funds and fewer people were investing in others new businesses. There is need for entrepreneurship support systems, enabling entrepreneurial culture and provision of funding. Small business incubation facilities, particularly for student and female entrepreneurs may be considered. In addition to the governmental resources, academic institutions, the corporate sector, formal and informal investors, established businesses and the media has to be mobilized to support the entrepreneurial initiatives for the Pakistani youth.

Access to Finance and Startup Funding Sources: Funding for most start-ups is obtained from one's own resources, close family members and relatives. The financial markets, such as Banks and other financial institutions, play a relatively minor role in start-up funding. Government support programs account for the smallest percentage of funding sources. Business Angels, as family networks, work colleagues, friends, and neighbors are also a significant source of venture funds. Business Angels also appear to be a favorable source of funds in that many have low expectations for high returns. However many investors have much higher expectations, such as, five to ten times their initial investment. To promote business activity in Pakistan, there must be a financial support environment that enhances the creation, development and growth of high-quality start-up and young businesses. The creation of formal channels through which liquidity can be channeled into the business start-ups needs to be addressed.

Gender disparity: The propensity to start a new venture is much lower in the female population. The few female respondents who said they were moved to create a business venture were motivated primarily by necessity, than by opportunity. Consequently, public policy will need to place greater emphasis on generating higher levels of interest in the female population in creating entrepreneurial ventures.

Interestingly, Pakistan scores high on perception of new opportunities and the skills and abilities to start a new business. However, there is a need to promote entrepreneurship mindset across the population, education and awareness at all levels. As a factor driven economy there is a huge scope in the area of agro based entrepreneurship, dairy business, halal food business, value addition in the textile products and in the light and medium engineering sector. The entrepreneurial belt of Gujranwala and Sialkot is famous for its light engineering products, ceramics, surgical equipment and sports goods. This whole region is breeding ground for innovation based opportunity entrepreneurship. Additionally, there are 72 geographic districts in Pakistan and more than 50 percent of entrepreneurial ventures are located in 10 districts namely, Karachi, Lahore, Faisalabad, Multan, Hyderabad, Sialkot, Gujrat, Gujranwala, Quetta and Sheikhupura[20]. GEM research can prove to be a pioneering effort in assessing entrepreneurial propensity in these industrial clusters by linking entrepreneurial framework conditions of each district to the country's overall economic growth. Ultimately, this will help policymakers in identifying and addressing the underlying issues uncovered in the national environmental factors to strengthen the relationship of entrepreneurship to economic dynamism by taking necessary policy measures in light of the strengths and weaknesses identified in this research.

In the pursuit of unleashing domestic entrepreneurial energy there is a need to inculcate the entrepreneurial culture and ensure both entrepreneurial dynamism and stability by encouraging opportunity at the same time facilitating necessity entrepreneurship. By being a member of the GEM community, Pakistan can better learn from its economic peers and geographic neighbors keeping in view its current challenges and development levels when designing such entrepreneurship support programs.

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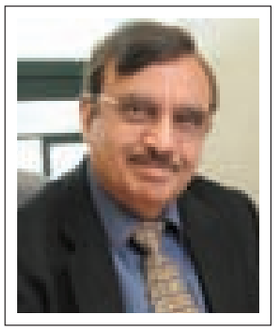

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Appendix 1: Glossary of Main Measures and Terminology

Measure	Description
Entrepreneurial Attitudes and Perceptions	
Perceived Opportunities	Percentage of 18-64 age group who see good opportunities to start a firm in the area where they live
Perceived Capabilities	Percentage of 18-64 age group who believe to have the required skills and knowledge to start a business
Entrepreneurial Intention	Percentage of 18-64 age group (individuals involved in any stage of entrepreneurial activity excluded) who intend to start a business within three years
Fear of Failure Rate	Percentage of 18-64 age group with positive perceived opportunities who indicate that fear of failure would prevent them from setting up a business
Entrepreneurship as Desirable Career Choice	Percentage of 18-64 age group who agree with the statement that in their country, most people consider starting a business as a desirable career choice
High-Status Successful Entrepreneurship	Percentage of 18-64 age group who agree with the statement that in their country, successful entrepreneurs receive high status
Media Attention for Entrepreneurship	Percentage of 18-64 age group who agree with the statement that in their country, they will often see stories in the public media about successful new businesses
Entrepreneurial Activity	
Nascent Entrepreneurship Rate	Percentage of 18-64 age group who are currently a nascent entrepreneur, i.e., actively involved in setting up a business they will own or co-own; this business has not paid salaries, wages or any other payments to the owners for more than three months
New Business Ownership Rate	Percentage of 18-64 age group who are currently an owner-manager of a new business, i.e., owning and managing a running business that has paid salaries, wages or any other payments to the owners for more than three months, but not more than 42 months
Total Early-Stage Entrepreneurial Activity (TEA)	Percentage of 18-64 age group who are either a nascent entrepreneur or owner-manager of a new business (as defined above)
Established Business Ownership Rate	Percentage of 18-64 age group who are currently owner-manager of an established business, i.e., owning and managing a running business that has paid salaries, wages or any other payments to the owners for more than 42 months
Business Discontinuation Rate	Percentage of 18-64 age group who have, in the past 12 months, discontinued a business, either by selling, shutting down or otherwise discontinuing an owner/management relationship with the business. Note: This is not a measure of business failure rates.
Necessity-Driven Entrepreneurial Activity: Relative Prevalence	Percentage of those involved in total early-stage entrepreneurial activity (as defined above) who are involved in entrepreneurship because they had no other option for work
Improvement-Driven Opportunity Entrepreneurial Activity: Relative Prevalence	Percentage of those involved in total early-stage entrepreneurial activity (as defined above) who (i) claim to be driven by opportunity, as opposed to finding no other option for work; and (ii) who indicate the main driver for being involved in this opportunity is being independent or increasing their income, rather than just maintaining their income

Measure	Description
Entrepreneurial Aspirations	
High-Growth Expectation Early-Stage Entrepreneurial Activity: Relative Prevalence	Percentage of total early-stage entrepreneurs (as defined above) who expect to employ at least 20 employees five years from now Weak measure: expects at least five employees five years from now
New Product-Market Oriented Early-Stage Entrepreneurial Activity: Relative Prevalence	Percentage of total early-stage entrepreneurs (as defined above) who indicate that their product or service is new to at least some customers and indicate that not many businesses offer the same product or service Weak measure: product is new or not many businesses offer the same product or service
International Orientation Entrepreneurial Activity with International Orientation	Percentage of total early-stage entrepreneurs (as defined above) with more than 25% of the customers coming from other countries Weak measure: more than 1% customers coming from other countries

Appendix 2 : GEM Pakistan 2010 Sampling and Weighting Methodology

Population Count

	Male					Female					
	18-24	25-34	35-44	45-54	55-64	18-24	25-34	35-44	45-54	55-64	**Total**
Pakistan Urban	3303672	3435369	2351819	1564790	922415	2963378	2865889	1989085	1332335	764295	**2149304**
Pakistan Rural	5729871	5609096	3780569	2959295	1982084	5974181	5527723	3696555	2791411	1712626	**3976341**
Total	**9033543**	**9044465**	**6132388**	**4524085**	**2904499**	**8937559**	**8393612**	**5685640**	**4123746**	**2476921**	**61256451**

Population Percent

	Male					Female					
	18-24	25-34	35-44	45-54	55-64	18-24	25-34	35-44	45-54	55-64	**Total**
Pakistan Urban	5.39%	5.61%	3.84%	2.55%	1.51%	4.84%	4.68%	3.25%	2.18%	1.25%	**35.09%**
Pakistan Rural	9.35%	9.16%	6.17%	4.83%	3.24%	9.75%	9.02%	6.03%	4.56%	2.80%	**64.91%**
Total	**14.75%**	**14.76%**	**10.01%**	**7.39%**	**4.74%**	**14.59%**	**13.70%**	**9.28%**	**6.73%**	**4.04%**	**100.00%**

Sample Count

	Male					Female					
	18-24	25-34	35-44	45-54	55-64	18-24	25-34	35-44	45-54	55-64	**Total**
Pakistan Urban	128	152	121	69	57	111	164	131	49	32	**1014**
Pakistan Rural	119	129	123	80	45	112	155	121	49	33	**966**
Total	**247**	**281**	**244**	**149**	**102**	**223**	**319**	**252**	**98**	**65**	**1980**

Sample Percent

	Male					Female					
	18-24	25-34	35-44	45-54	55-64	18-24	25-34	35-44	45-54	55-64	**Total**
Pakistan Urban	6.46%	7.68%	6.11%	3.48%	2.88%	5.61%	8.28%	6.62%	2.47%	1.62%	**51.21%**
Pakistan Rural	6.01%	6.52%	6.21	4.04%	2.27%	5.66%	7.83%	6.11%	2.47%	1.67%	**48.79%**
Total	**12.47%**	**14.19%**	**12.32%**	**7.53%**	**5.15%**	**11.26%**	**16.11%**	**12.73%**	**4.95%**	**3.28%**	**100.00%**

Weight Factors

	Male					Female					
	18-24	25-34	35-44	45-54	55-64	18-24	25-34	35-44	45-54	55-64	
Pakistan Urban	0.83	0.73	0.63	0.73	0.52	0.86	0.56	0.49	0.88	0.77	
Pakistan Rural	1.56	1.41	0.99	1.20	1.42	1.72	1.15	0.99	1.84	1.68	

Appendix 3: GEM Pakistan 2010 National Expert Survey Participants

Name	Title	Organization
Mr. Iqbal Ahmed Qarshi	CEO	Qarshi Industries, Lahore
Samir S. Mir	Director Research	Pakistan Business Council., Karachi
Zafar siddiqui	Director	CED @ IBA, Karachi
Mazhar ul Haq Siddiqui	Former Vice Chancellor	Sindh University
Dr. Syed Zahoor Hassan	Vice Chancellor	LUMS, Lahore
Dr. Abdul Ghafoor Balauch	President	Anjuman-i-Asatiza
Dr. Syed Naimat Ali Rizvi	Principal	PCSIR Labs, Karachi
Dr. Arshad Ali	Director General	SEECS @ NUST, Islamabad
Mian Muhammad Hanif	Chairman	Madina Group of Industries, Faisalabad
Dr. Abid Pervez Ghuman	Director General	TIC @ NUST, Islamabad
Mr. Danishmand	Professor & Dean	Int'l Islamic Univ., Islamabad
Anjum Fayyaz	Director and Head	UNIDO Clusters Program, Lahore
Rizwan Amin Sheikh	Former Head	Punjab IT Board
Ms. Naheed Memon	Entrepreneur, Director	Kings Group of Industries, Karachi
Kamran Y. Mirza	Chief Executive	Pakistan Business Council, Karachi
Prof. Mukhtar Ahmed	Member	Higher Education Commission, Islamabad
Dr. S.T.K. Naim	Consultants	COMSTECH, Islamabad
Dr. Syed Mohammad Zaidi	Dean	SEEC @ NUST, Islamabad
Muhammad Khuram Idrees	Director	Commercialization @ NUST, Islamabad
Dr. Asher Hasan	Entrepreneur, CEO	Naya Jeevan, a social enterprise
Adnan Afridi	Managing Director	Karachi Stock Exchange
Dr. Mirza Ikhtiar Baig	Chairman	Baig Group of Industries, Karachi
Ms. Jehan Ara	President	Pasha Software Houses
Khalid Khan	Chairman & CEO	Agribusiness Development Fund, Karachi
Abdul Rahman	Entrepreneur, CEO	Plexus, Pakistan
Ms. Yasmin Dastur	Vice President	APWA, Karachi
Ms. Afshan Khan	Director	UNICEF Office
Mr. Shahid Kamal	Businessman, Ambassador	Pakistan Embassy, Germany
Ghause Akbar	Director	Nike, Pakistan
Arif Habib	Chairman	Arif Habib Securities Ltd, Karachi
Javed jabbar	CEO and Former Minister	J.J. Media
Ms. Sultana Siddiqui	President & CEO	Eye Television Network
Fateh Muhammad Burfat	Professor	University of Karachi
Kamran Niazi	Manager & Consultant	Deloitte Consulting
Dr. Niaz Ahmad	Reactor	National Textile University, Faisalabad
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Appendix 4: GEM 2010 Global Team Details

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Bío-Bío	Univ. Católica de la Santísima Concepción	Jorge Espinoza	UCSC-Facultad de Ciencias Económicas y Adminitrativas		
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Aragón	Univ. de Zaragoza	Lucio Fuentelsaz	Gob. de Aragón Dpto, Industria, Comercio y Turismo Instituto Aragones Fomento Consejo Aragones Cámaras de Comercio.		
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Navarra	Centro Europeo de Empresas e Innovación de Navarra Servicio Navarro de Empleo.	Cristina García	Gobierno de Navarra, Servicio Navarro de Empleo.		
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Appendix 5: The Center for Entrepreneurial Development (CED)

Introduction: The Centre for Entrepreneurial Development at IBA has been recently created to promote entrepreneurship in the country with the collaboration of Babson Business School, US. The objective of CED is to create wealth and value for Pakistan by promoting entrepreneurship and helping entrepreneurs to build successful businesses by helping them to develop the required entrepreneurial talent and skills and to network with the right business leaders, mentors and investors.

The CED at IBA aims to become a world-class center to promote entrepreneurship and foster a new culture of enterprise in Pakistan. The mission of CED is to be a leader in training, nurturing, advocacy and research on entrepreneurship that advances the creation, growth and success of new, innovative enterprises in Pakistan. The emphasis will be to enable new generations of Pakistani entrepreneurs to translate their ideas into new business ventures. The CED will be creating new companies that add substantial jobs, incomes and revenues to the Pakistani economy. In the first phase the three faculty members have received extensive training from Babson Business School. A new program, BBA in entrepreneurship has started with the aim of producing entrepreneurs and managers with an entrepreneurial mindset.

The construction of the new building of the CED is in the final stages. It is expected to be completed in by April 2012. The various functional areas of CED are as follows.

Education and Training

Promotional seminars as well as efforts to popularize entrepreneurship and reduce societal biases and promote entrepreneurship as a career option. To help build linkages and networks with stakeholders in the enterprise ecosystem. Short duration workshops and training programs are being conducted. In addition a full time BBA in entrepreneurship program was started in 2011. An MBA in entrepreneurship program will be offered in the near future.

Research

The development of case studies on Pakistani entrepreneurs and investigating the various challenges faced by them and studying the key success factors among the successful ventures is on the CED's research agenda. Various areas identified for research are as follow

- Key success factors for Pakistani new businesses
- Family business: Issues and opportunities
- Agriculture business opportunities in Pakistan
- Technology Entrepreneurship
- Women entrepreneurship
- Social Entrepreneurship

Entrepreneurship advisory services

To help with the business idea generation, support for commercializing the ideas forming a company and obtaining intellectual property rights (IPR), and facilitating advisory services such as access to finance. CED will provide these services with the help of existing service providers like the Small and Medium Enterprise Development Authority (SMEDA), SME bank and other investors. CED is also in the process of establishing a business incubator to support the young entrepreneurs.

The student entrepreneurs also work as individuals and teams to help local businesses to solve their problems. This involves their engagement on as needed basis in areas like market analysis, assessment of commercial potential for new technologies, new product launches and feasibility studies. CED has also initiated student entrepreneurship promotion activities like INVENT (business plan activity), startup weekend with the help of Kauffman foundation, SPARK, entrepreneurs club, guest speaker series and women entrepreneurs club etc.

Women entrepreneurship is also an important area for the CED due to the low level of women entrepreneurship in Pakistan. Women focused programs and CED activities on women's entrepreneurship are being designed.

In addition to this CED is in the process of collaborating with other academic institutions and organizations in the country to promote entrepreneurship in other regions of Pakistan like Gujranawala, Faisalabad, Sukkur and Peshawar.

Aman Center for Entrepreneurial Development at IBA, Karachi

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