GEM

GLOBAL ENTREPRENEURSHIP MONITOR

GEM 2006 Summary Results

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GLOBAL ENTREPRENEURSHIP

GEM 2006 SUMMARY RESULTS

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Although GEM data were used in the preparation of this report, their interpretation and use are the sole responsibility of the authors.

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1.0

INTRODUCTION

INTRODUCTION

The Global Entrepreneurship Monitor (GEM) cross-national assessment of entrepreneurial activity is now in its eighth cycle. Started in 1999, with ten participating countries, the project has expanded to include 42 countries in 2006.

GEM is a major research project aimed at describing and analysing entrepreneurial processes within a wide range of countries. In particular, GEM focuses on three main objectives:

- To measure differences in the level of entrepreneurial activity between countries.
- To uncover factors determining the levels of entrepreneurial activity.
- To identify policies that may enhance the level of entrepreneurial activity.

To this end, the project has from the start, been designed as a multinational research programme providing annual assessments of the entrepreneurial sector for a range of countries.[1]

GEM's contribution to the knowledge and understanding of the entrepreneurial process is unique since, to date, no other data set exists that can provide consistent cross-country information and measurements of entrepreneurial activity in a global context.

Information about GEM and all GEM documents can be found at www.gemconsortium.org.

[1] *GEM's research methodology and procedures are described in Reynolds, P.D., N. Bosma, E. Autio, S. Hunt, N. DeBono, I. Servais, P. Lopez-Garcia and N. Chin (2005), "Global Entrepreneurship Monitor: Data Collection Design and Implementation 1998–2003", Small Business Economics 24: 205–231*

EARLY-STAGE ENTREPRENEURIAL ACTIVITY AND ESTABLISHED BUSINESS OWNERSHIP

GEM estimates the level of involvement in early-stage entrepreneurial activity by combining the prevalence rate of nascent entrepreneurs (people in the process of starting a new business) and new business owners.

- Nascent entrepreneurs are those individuals, between the ages of 18 and 64 years, who have taken some action towards creating a new business in the past year. In order to qualify in this category, these individuals must also expect to own a share of the business they are starting and the business must not have paid any wages or salaries for more than three months.
- New business owners are individuals who are active as owner-managers of a new business that has paid wages or salaries for more than three months, but less than 42 months.

In addition to those individuals who are currently involved in the early-stages of a business, there are also many individuals who have owned and managed a business for a longer time. These individuals are included in GEM's estimates of the number of established business owners. Specifically, the percent of individuals in a population who owns and manages a business that has paid wages or salaries for more than 42 months.

These two measurements are both very important, as they convey different information about the entrepreneurial landscape of a country. Early-stage entrepreneurship indicates the dynamic entrepreneurial propensity of a country. In other words, it shows the percentage of the population willing and able to undertake an entrepreneurial venture. Established business ownership, instead, indicates the percentage of the population actively involved in running businesses that proved to be sustainable. The estimates of the measurements discussed here, are presented in Table 1 for all 42 countries involved in GEM 2006.

	NASCENT ENTREPRENEURIAL ACTIVITY	NEW BUSINESS OWNERS	EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA)*	ESTABLISHED BUSINESS OWNERS	NUMBER OF RESPONDENTS 18-64 YEARS
Argentina	6.4%	4.1%	10.2%	7.0%	1,755
Australia	7.3%	5.7%	12.0%	9.1%	1,971
Belgium	1.8%	1.1%	2.7%	2.1%	2,001
Brazil	3.5%	8.6%	11.7%	12.1%	2,000
Canada	4.1%	3.2%	7.1%	5.1%	1,697
Chile	5.7%	3.9%	9.2%	6.8%	2,007
China	6.7%	10.5%	16.2%	9.0%	2,399
Colombia	10.9%	12.6%	22.5%	10.4%	2,000
Croatia	6.4%	2.5%	8.6%	4.1%	1,549
Czech Republic	6.4%	2.0%	7.9%	5.4%	1,628
Denmark	2.9%	2.8%	5.3%	5.3%	10,000
Finland	2.9%	2.4%	5.0%	8.2%	2,005
France	3.8%	0.7%	4.4%	1.3%	1,519
Germany	2.9%	1.7%	4.2%	3.0%	4,049
Greece	5.7%	2.3%	7.9%	8.2%	2,000
Hungary	3.2%	3.0%	6.0%	6.7%	2,500
Iceland	8.1%	3.8%	11.3%	7.4%	2,001
India	5.4%	5.3%	10.4%	5.6%	1,916
Indonesia	9.6%	11.5%	19.3%	17.6%	1,998
Ireland	4.5%	2.9%	7.4%	7.8%	1,961
Italy	2.2%	1.4%	3.5%	3.0%	1,626
Jamaica	11.6%	9.2%	20.3%	10.3%	3,554
Japan	1.6%	1.4%	2.9%	4.8%	1,923
Latvia	4.0%	2.7%	6.6%	5.7%	1,958
Malaysia	4.9%	6.2%	11.1%	7.3%	2,005
Mexico	4.1%	1.2%	5.3%	2.3%	1,839
Netherlands	3.6%	1.9%	5.4%	6.6%	2,685
Norway	5.3%	4.3%	9.1%	6.0%	1,503
Peru	30.0%	15.1%	40.2%	12.4%	1,845
Philippines	5.0%	15.6%	20.4%	19.7%	2,000
Russia	3.5%	1.7%	4.9%	1.2%	1,894
Singapore	2.7%	2.5%	4.9%	3.4%	3,883
Slovenia	2.9%	1.8%	4.6%	4.4%	3,008
South Africa	3.6%	1.7%	5.3%	1.7%	2,684
Spain	3.0%	4.4%	7.3%	5.5%	28,306
Sweden	2.2%	1.4%	3.5%	5.0%	1,747
Thailand	4.1%	11.5%	15.2%	17.4%	2,000
Turkey	2.2%	4.0%	6.1%	11.5%	2,417
United Arab Emirates	1.7%	2.2%	3.7%	1.4%	1,903
United Kingdom	3.2%	2.8%	5.8%	5.4%	34,896
United States	7.5%	3.3%	10.0%	5.4%	2,325
Uruguay	8.4%	4.6%	12.6%	6.9%	1,618

Table 1 - Prevalence rates of entrepreneurial activity across countries in 2006 (in percentages of adult population 18-64)

* Early stage entrepreneurial activity includes nascent entrepreneurial activity and new business owners. Some respondents are involved in both nascent entrepreneurial activity and new business ownership, hence the result that early-stage entrepreneurial activity rates are generally lower than the sum of both components.

2.0

ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT

ENTREPRENEURSHIP AND PER CAPITA GDP LEVELS

A systematic relationship exists between a country's level of economic development and its level and type of entrepreneurial activity. Countries with similar per capita GDP tend to exhibit similar levels of entrepreneurial activity, while significant differences exist across countries with different per capita GDP levels.

At low levels of per capita GDP, industrial structure is characterised by the prevalence of many very small enterprises. As per capita income increases, industrialisation and economies of scale allow larger and established firms to satisfy the increasing demand of growing markets and to increase their relative role in the economy. This increase in the role of large firms is usually accompanied by a reduction in the number of new enterprises, since a growing number of people find stable employment in large industrial plants. As further increases in income are experienced, however, the role played by the entrepreneurial sector increases again, as more individuals have the resources to go into business for themselves in an economic environment that allows the exploitation of opportunities. In high income economies, through a growing services sector, enhanced differentiation of consumer wants and accelerated technology development, entrepreneurial businesses enjoy a newly found competitive advantage. Of course, the rate of aggregate entrepreneurial activity also depends on the demographic, cultural and institutional characteristics of each country.

Regardless of the level of development, and firm size, entrepreneurial behaviour remains a crucial engine of innovation and growth for the economy and for individual companies since, by definition, it implies attention and willingness to take advantage of unexploited opportunities.

Consistently with the previous analysis, Figure 1 shows that:

- Early-stage entrepreneurial activity is generally higher in those countries with lower levels of GDP.
- Early-stage entrepreneurial activity is relatively low in high income countries, especially for the core countries of the European Union and Japan.
- Countries with highest levels of GDP show increasing early-stage entrepreneurial activity suggesting a new increase in opportunity related entrepreneurship.

Figure 1 illustrates the association between entrepreneurship and the level of economic development outlined earlier. However, this cross-sectional approach does not imply any specific causal relationships between entrepreneurial activity and economic development.

Figure 2 shows early-stage entrepreneurial activity across GEM countries in 2006.

There are wide variations in prevalence rates, although over the years, GEM data have shown these variations across countries to be relatively stable.

- Early-stage entrepreneurial activity is highest in Peru at 40.2%, and lowest in Belgium at 2.7%.
- The vertical bars indicate the confidence intervals (95%) of GEM estimates. Countries whose confidence intervals overlap do not differ from one another in a statistically significant manner.

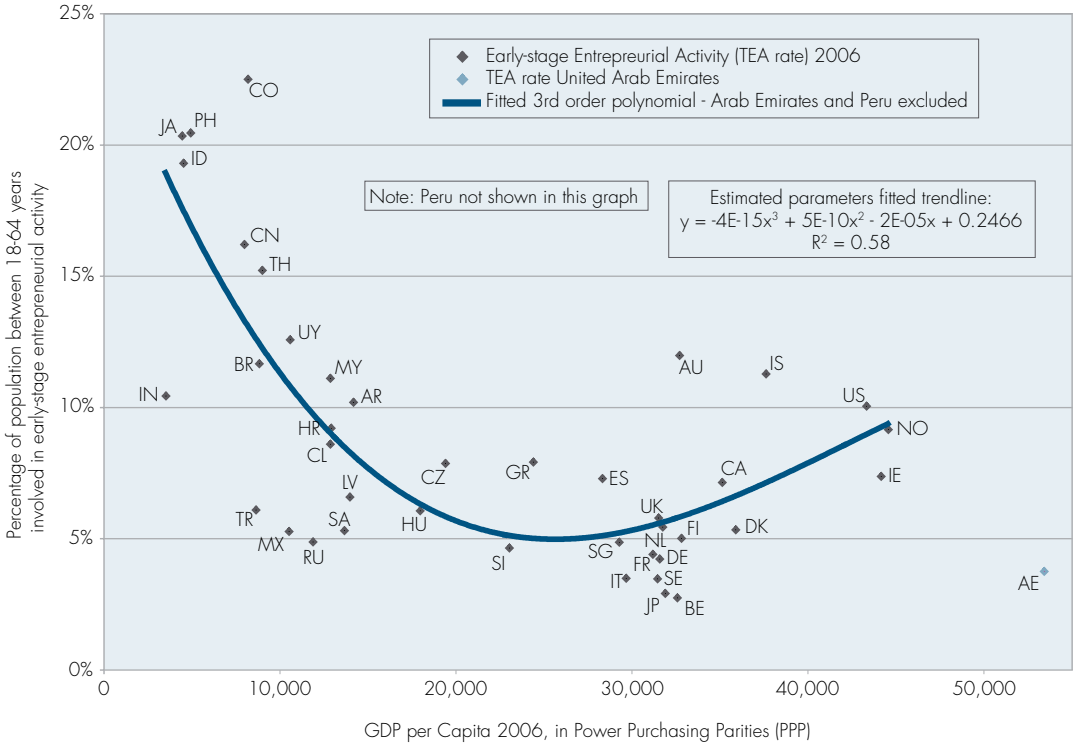


Fig. 1 - Early-Stage Entrepreneurial Activity Rates and GDP per Capita, 2006

Note: GDP levels were taken from the IMF's World Economic Outlook Database (October 2006)

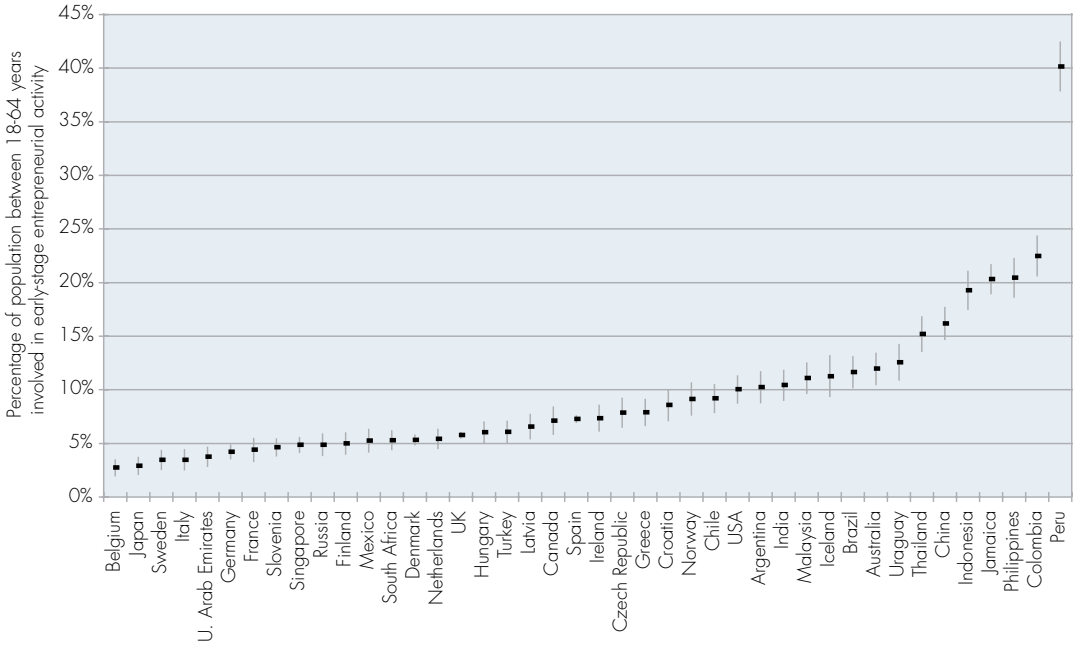


Fig. 2 - Early-Stage Entrepreneurial Activity by Country, 2006

Fig. 3 - Established Business Ownership by Country, 2006

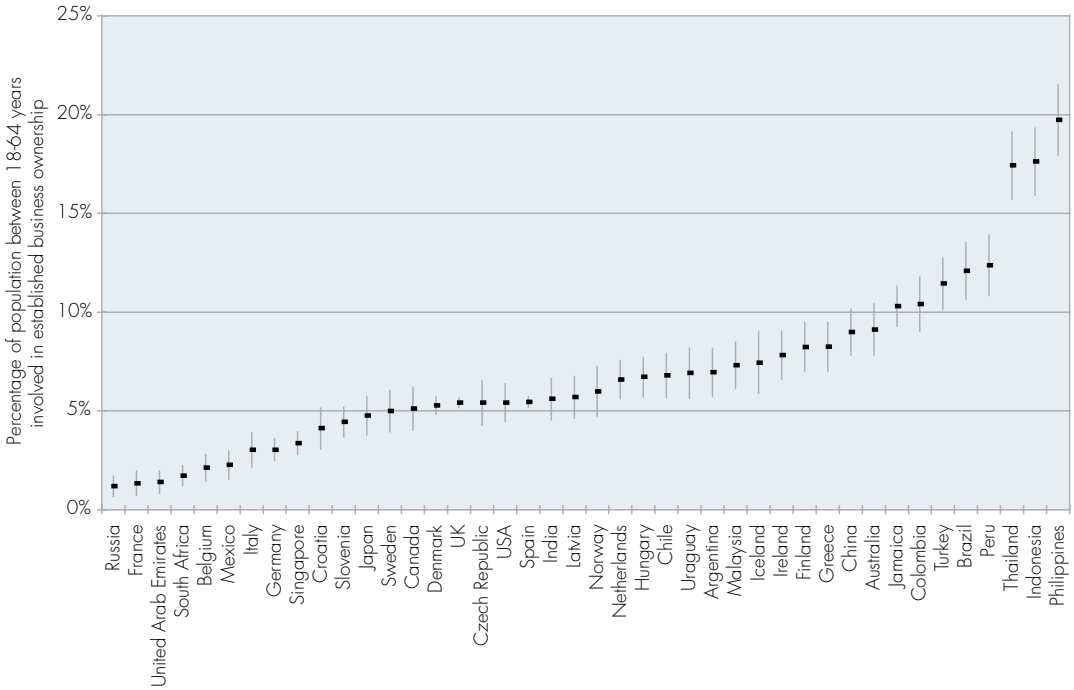


Figure 3 shows the prevalence rates of established business owners across GEM countries in 2006.

- Countries with higher early-stage entrepreneurial activity also tend to have higher prevalence rates of established business ownership. For example, the Philippines have the highest established business ownership at 19.7% and third highest early-stage entrepreneurial activity at 20.4%. Belgium, on the other hand, has the lowest rate of early-stage entrepreneurial activity and the fifth lowest rate of established business ownership.
- There are some exceptions to this general pattern. For instance, the United States have an established business rate, which is comparable to those of many European countries and Japan, whereas figure 2 showed that early-stage entrepreneurial activity is higher in the United States.

HIGH INCOME VERSUS MIDDLE INCOME COUNTRIES

Given the established association between entrepreneurial activity and per capita GDP levels, countries that participated in the GEM study in 2006 can be divided into two groups, based on their per capita GDP.

Middle Income Countries[2]

Argentina, Brazil, Chile, China, Colombia, Croatia, Czech Republic, Hungary, India, Indonesia, Jamaica, Latvia, Malaysia, Mexico, Peru, Philippines, Thailand, Turkey, Russia, South Africa, Uruguay.

High Income Countries[3]

Australia, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Netherlands, Norway, Singapore, Slovenia, Spain, Sweden, United Arab Emirates, United Kingdom, United States.

As suggested by figures 2 and 3, middle income countries lead in both early-stage entrepreneurial activity and the rate of established business ownership. The differences in prevalence rates between the two country groups are statistically significant at above 99% confidence level.

[2] These countries have per capita (PPP) GDP lower than USD $20,000. In 2006, their average per capita (PPP) GDP is USD $10,367 and their average real GDP growth (2005) equals 5.4%.

[3] These countries have per capita (PPP) GDP higher than USD $20,000. In 2006, their average per capita (PPP) GDP is USD $34,139 and their average real GDP growth (2005) equals 3.5%.

3.0

CHARACTERISTICS OF ENTREPRENEURIAL ACTIVITY

MOTIVATION

The GEM survey allows for differentiation according to the reasons that motivate entrepreneurial behaviour. In the GEM framework, individuals start a business for two main reasons:

- They want to exploit a perceived business opportunity (opportunity entrepreneurs).
- They are pushed into entrepreneurship because all other options for work are either absent or unsatisfactory (necessity entrepreneurs).

The vast majority of early-stage entrepreneurs across the world claim that they are attempting to take advantage of a business opportunity. Yet, figure 4 shows that there is also variation across countries in the balance of start-up motives. Overall, the results show that necessity entrepreneurship is relatively more common in middle income countries than in high income countries.

- In the group of middle income countries, the lowest percentages of opportunity-driven early-stage entrepreneurial activity are found in Croatia, Brazil and the Philippines at around 50%. At the other end, about 90% of Malaysia's and Indonesia's early-stage entrepreneurs report to be driven by opportunity.
- There is also wide variation in the group of high income countries. The highest percentages of opportunity-driven early-stage entrepreneurial activity are found in Denmark, Norway and the Netherlands (all higher than 90%). Germany, France and Greece have much lower shares of opportunity-driven early-stage entrepreneurs at about 60%.

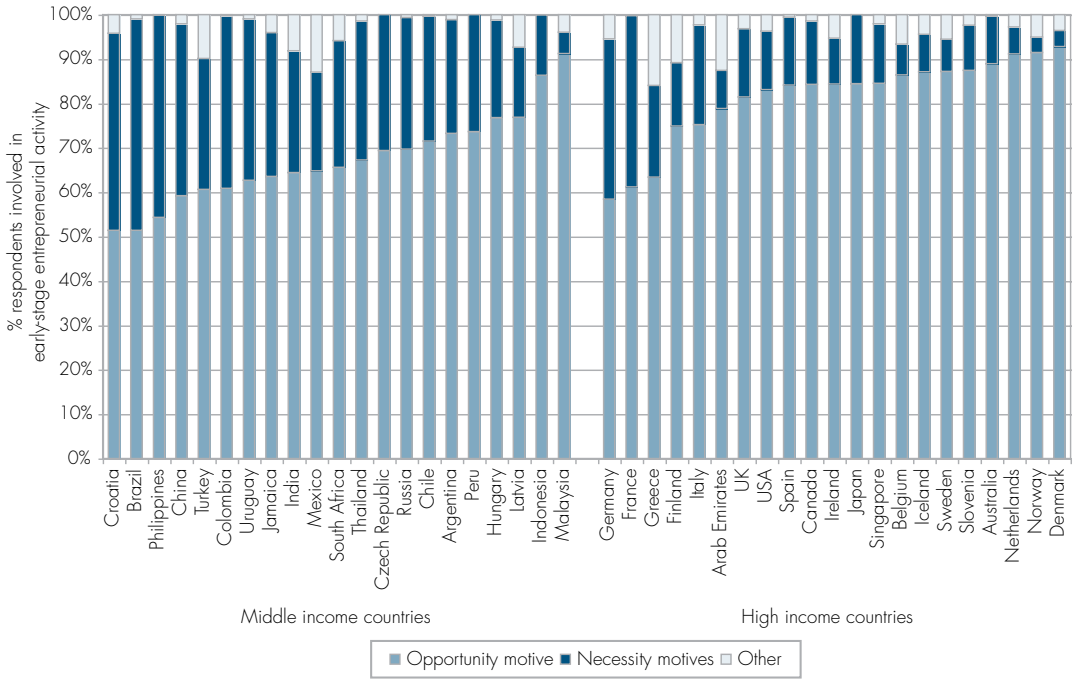


Figure. 4 - Opportunity to Necessity Early-Stage Entrepreneurship

INNOVATIVENESS

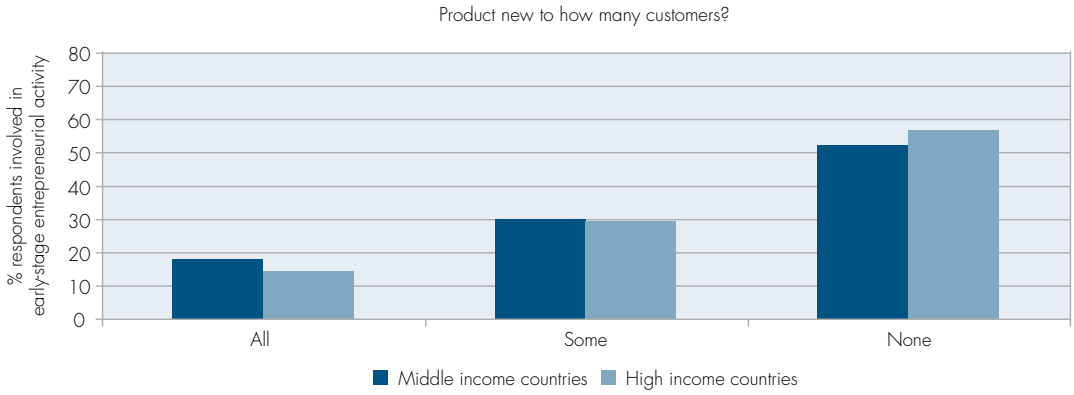
By increasing the competitive offering of new products and services, entrepreneurs contribute towards greater market efficiency. In addition, many entrepreneurs are important agents of innovation. To measure innovativeness, GEM asked entrepreneurs and business owners how they evaluate the newness of their product or service, the competition they face, and the novelty of their product or service technology. Because they represent individual entrepreneurs' perceptions of their own situation, such assessments are inevitably context-specific, and they are likely to vary between countries.

Figure 5 compares the newness of the products and services among early-stage entrepreneurs and established business owners in the two country groups. The pattern is very similar for both groups: the majority of businesses are offering products or services that are not new to customers, and only a small fraction claim that what they offer is new to all customers.

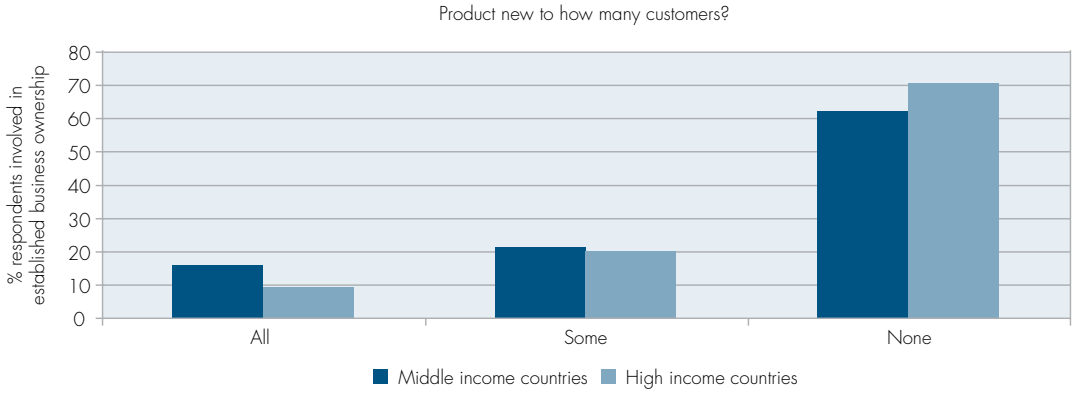
- In middle income countries, early-stage entrepreneurs are somewhat more likely (19%) to say that their product is new to all customers than those in high income countries (15%).
- 52% of early-stage entrepreneurs in middle income countries and 56% of early-stage entrepreneurs in high income countries did not consider their product to be new to their customers.

Figure. 5 - Newness of Products by Country Group, 2006

Early-stage entrepreneurial activity



Established business ownership



- Similarly, established business owners in middle income countries were more likely to say that their product was new to all customers (16%) than established business owners in high income countries (9%).
- In high income countries, established business owners are more likely than their counterparts in middle income countries to view their product as new to none of their customers (71% compared to 62%).
- The proportion of established business owners who believe to have an innovative product is significantly lower than the related percentage of early-stage entrepreneurs.

Figure 6 shows that most entrepreneurs also say that they expect to face many competitors in their markets. Established business owners in the two country groups show no significant difference in their evaluation of the degree of competition they face.

- Regardless of country group, about half of early-stage entrepreneurs expect many competitors (51% in high income countries and 57% in middle income countries).
- Only 11% of early-stage entrepreneurs in high income countries and 9% in middle income countries expected to have no competitors.
- In the middle income country cluster, established business owners are more likely to say that they have many competitors compared to their high income counterparts (70% compared to 63%).
- Only 6% of established business owners in both middle income countries and high income countries claim that there are no other businesses offering the same product.

A third important indicator of the innovativeness of a business comprises the technologies and productive processes it uses. Figure 7 shows significant differences in the use of new technologies between high and middle income country groups.

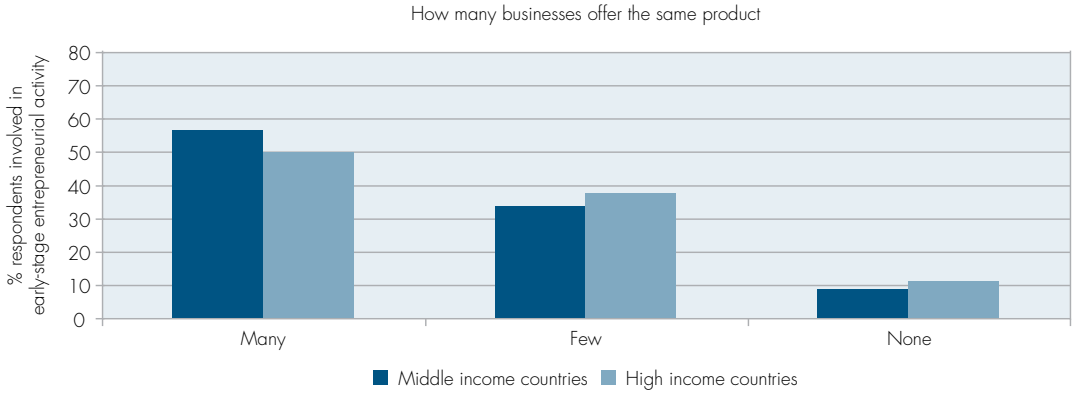
- In both country groups, the percentage of established business owners claiming that their technology is not new is significantly higher than the comparable percentage of early-stage entrepreneurs.
- Early-stage entrepreneurs in middle income countries are substantially more likely to use new technologies than their counterparts in high income countries. Depending on levels of development, a technology considered new in a middle income country may not be considered as new in a high income country.
- In middle income countries, 16% of early-stage entrepreneurs claimed that they used the very latest technology (not available a year ago) and 22% claimed they used new technology (available for 1-5 years). In high income countries, these figures are 7% and 18% respectively.

SECTORAL DISTRIBUTION

In order to analyse the sectors in which people attempt to start businesses and compare their distribution with those of established business, GEM codes activity according to the International Standard of Industrial Classification of All Economic Activities (ISIC). Figure 8 shows that the largest share of early-stage entrepreneurs and established business owners are active in consumer oriented activities (where the primary customer is a physical person e.g. retail, restaurants and bars, lodging, health, education, social services, recreation), followed by transformation (construction, manufacturing, transportation, and wholesale distribution) business services (where the primary customer is another business), and extractive activities (extraction of products from the natural environment).

Figure. 6 - Expected Number of Competitors by Country Group, 2006

Early-stage entrepreneurial activity



Established business ownership

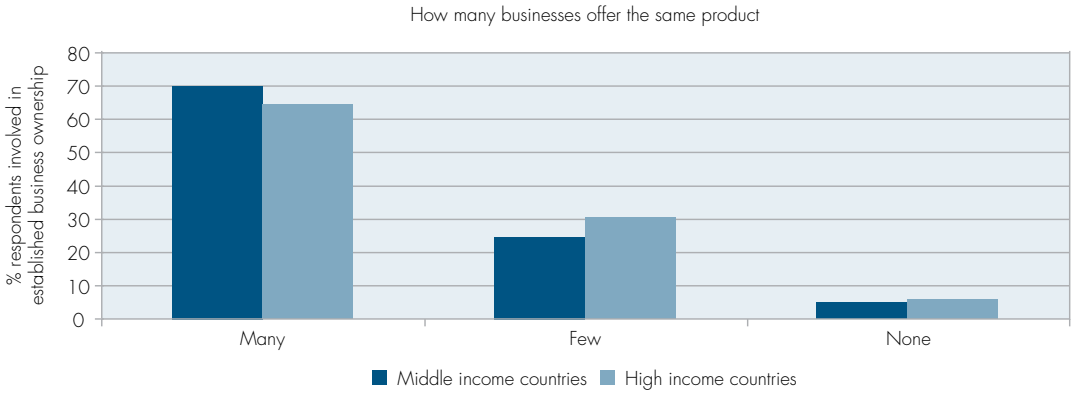
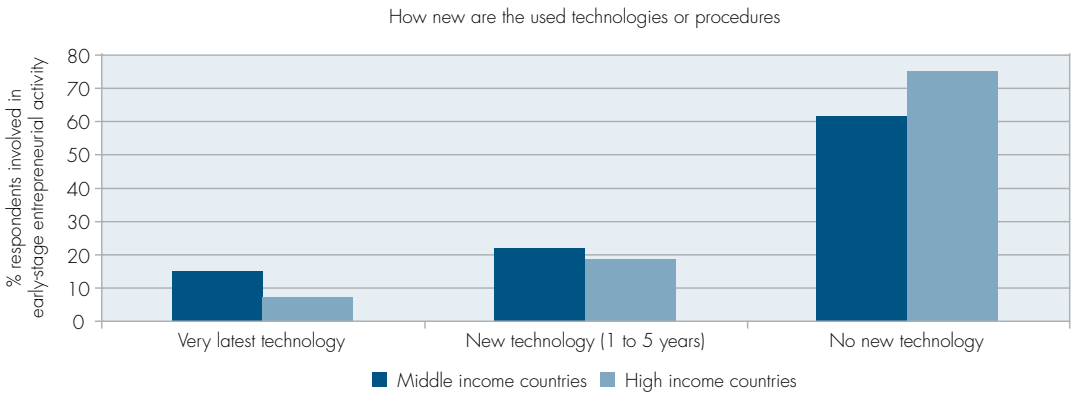


Figure. 7 - Newness of Technology by Country Income Grouping, 2006

Early-stage entrepreneurial activity



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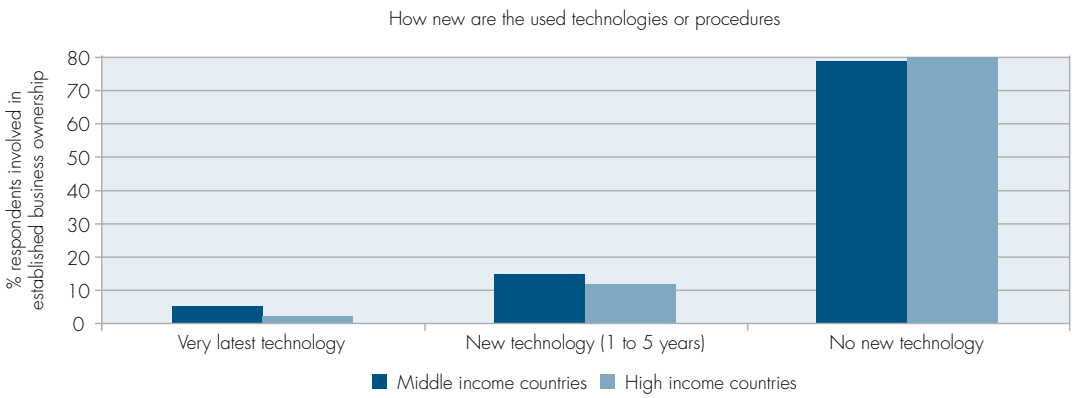
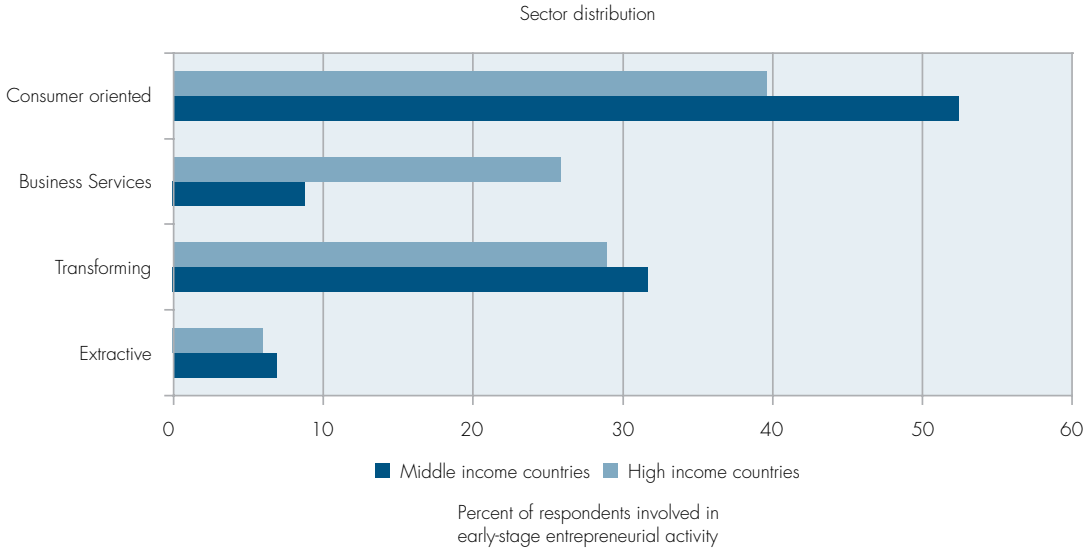
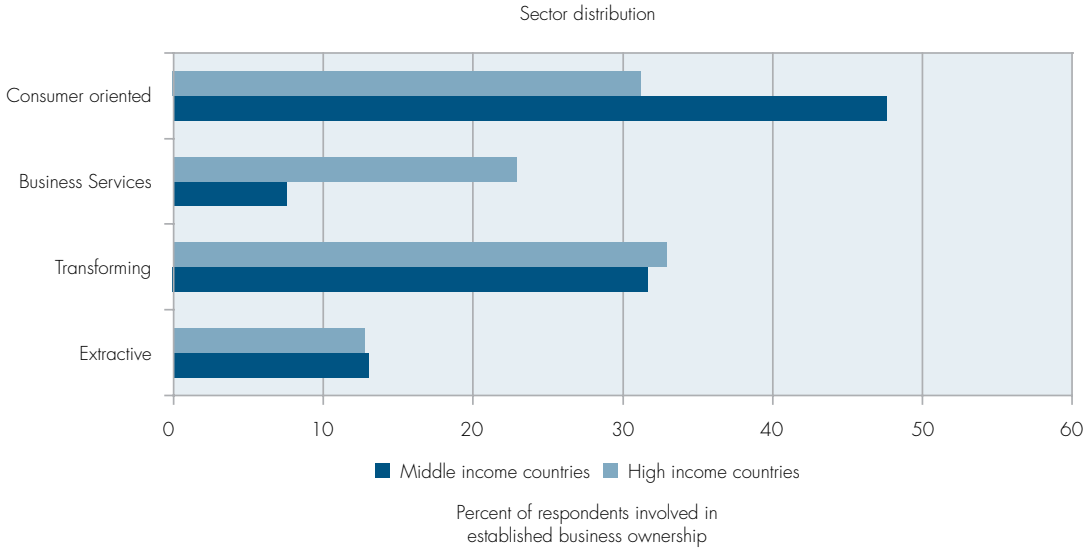




Early-stage entrepreneurial activity



Established business ownership

Figure. 8 - Sectoral Distribution of Entrepreneurial Activity by Country Clusters, 2006

- Early-stage entrepreneurs in high income countries are much more likely to be found in the business services sector than those in middle income countries (25% zd to 9%). The pattern for established business ownership is very similar; early-stage entrepreneurs in middle income countries are more likely to sell their products directly to the consumer. In other words, figure 8 confirms that there is more business-to-business trade in high income countries.
- For both country groups the share of early-stage entrepreneurs who are active in extractive sectors is significantly lower than the share of established business owners who are active in extractive sectors.

ENTREPRENEURIAL DEMOGRAPHICS

Scholars of entrepreneurship in a variety of disciplines agree that age, gender, work status, education, income, and perceptions are all significant socio-economic factors in a person's decision to start a business.

Age

The age distribution of early-stage entrepreneurs is comparable between high income countries and middle income countries. In particular, early-stage entrepreneurial activity is most prevalent in the age group of individuals 25-34 years old, and least prevalent in the 55-64 year old group.

The age distribution of established business owners is also comparable between the two-country groups. On average, established business owners are older than early-stage entrepreneurs. Respondents aged 45-54 years old in both the middle and high income groups reported the highest rate of established business ownership.

Gender

In general, men are significantly more likely to start a business than women. In none of the countries participating in GEM in 2006 are women more active in starting and owning businesses than men. Only in the Philippines are women and men about equally likely to be entrepreneurially active. Significant differences exist, however, in the gender gap between countries.

The gender gap exists for both early-stage entrepreneurial activity and established business ownership, and in both country groups. Yet, the gender gap is more pronounced in high income countries than in middle income countries. This could be because (i) the access of women to labour markets may be more restricted in middle income countries, prompting them to start their own businesses instead and (ii) in higher income countries women may have access to social services and safety nets that may discourage them from setting up businesses.

For both country groups, the gender gap is greater among established business owners than among early-stage entrepreneurs. The available data does not allow us to say whether this might be due to a higher success of males in getting the business started and sustainable, or whether this might signal greater future participation of women in entrepreneurial activity.

Work Status

In both country groups, the participation rates of people currently starting a business are by far the highest among working people, either full-time or part-time. In both country groups, participation rates in early-stage entrepreneurial activity are much lower among people who are currently not working (e.g., due to unemployment), or who are not actively participating in the labour market because they are either students or retired. Overall, the work status patterns are quite similar between the two country groups, except that the participation rates of not-working people are higher in the middle income countries.

Education

Similar to 2005, in both clusters, people with post-secondary or graduate educations are more involved in early-stage entrepreneurial activity.

Established business ownership in both middle and high income countries does not show a similarly strong correlation with educational attainment.

Overall, however, the relationship between entrepreneurial activity at all stages and education is unclear. This is probably due to the fact that entrepreneurial ventures are the response to a variety of circumstances and present a variety of characteristics.

Household Income

Across all countries, regardless of per capita GDP, individuals with a higher household income are more likely to be involved in early-stage entrepreneurial activity. However, differences among income groups within each country are less pronounced in middle income countries.

When grouping early-stage entrepreneurial activity rates with respect to household income categories, the aggregate difference within high income countries is greater than the aggregate difference within middle income countries. This difference is far less pronounced for established entrepreneurship. Also, the prevalence of established business ownership shows a somewhat different pattern for the two country groups. Higher income levels are much more common among established business owners in high income countries than in middle income countries.

CONCLUDING REMARKS

The GEM project provides a comprehensive description of entrepreneurial activity around the globe. This, in turn, is intended to provide a platform for debate concerning policy implications. Governments have an important role to play in encouraging entrepreneurial activity, and this role is likely to vary according to the income level of a given country.

The institutional environments that entrepreneurs operate in – political, legal, and cultural – directly influence their activity and hence the course of economic development of the country. Entrepreneurs are present in every country and every cultural setting. The institutional environment will direct the activities of entrepreneurs. Thus, when it comes to entrepreneurship, the creation of institutions conducive to entrepreneurial activity, such as property rights, monetary stability, respect and enforcement of the rules of law, legal and financial transparency, market openness, and a fair competitive environment are the fundamental responsibilities of government all over the world.

In addition to these general principles, the expanded view of entrepreneurship provided by the GEM study confirms that entrepreneurship comes in many forms. Therefore, when it comes to entrepreneurial policy, one size does not fit all. Effective policies with respect to entrepreneurship need to be tailored to the local context and depend on what aspect of its entrepreneurial portfolio a country wishes to enhance.

Since its inception in 1999, GEM has provided an unprecedented amount of information on entrepreneurial activity across countries. We invite academics, policy makers, entrepreneurs, and anyone interested and passionate about entrepreneurship to use this information and to work with us to further increase what we know about this important phenomenon.

4.0

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