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Entrepreneurial Activities in Turkey: An International Comparison Using GEM Data*

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ABSTRACT

The purpose of this study is to explore the entrepreneurial activities in Turkey and determine Turkey's entrepreneurial position globally. Data is collected through the standard survey of Global Entrepreneurship Monitor (GEM) project. The results indicate a low participation rate among women and young people in the entrepreneurial activities and a low level of entrepreneurial dynamism in the economy. Further, a lack of financial support, inadequate government policies providing knowledge on technology and tax incentives, and insufficient intellectual property rights are some of the important obstacles encountered by entrepreneurs in Turkey compared to those in some developing and developed countries.

Keywords: entrepreneurship; global entrepreneurship monitor data; small and medium-sized enterprises; Turkey

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1 Introduction

Entrepreneurial behaviour within existing organizations is mostly taken in the literature as activities that individuals use innovative resources to generate opportunities (Mair, 2002, p.1). The focus on innovativeness for such behaviour makes entrepreneurship an important factor for economic and social development in most previous research (e.g., Acs and Audretsch, 1993; Drnovsek, 2004; Tang and Koveos, 2004; Wennekers et al., 2005). The important contributions of entrepreneurs to accelerate the economic growth of a developing country like Turkey go hand-in-hand with the contributions of small and medium-sized enterprises (SMEs), where SMEs represent more than 99 percent of the total number of Turkish enterprises in the manufacturing sector (KOSGEB, 2005).

"The entrepreneur; being a founder, a transformer, a producer, and a reproducer of the organization with its norms and values", is a central and vital factor of SMEs (Yetim and Yetim, 2006). The success of a small business depends on the initiatives of the individual entrepreneur to create a viable business. Therefore, a nationwide study on discovering the general behaviours of entrepreneurs and the environmental factors that motivate them to embark on entrepreneurial career is very useful for the international traders in the world to understand their prospective business partners better.

The purpose of the current study is to (1) explore the entrepreneurial behaviour in Turkey through determining some demographic characteristics of Turkish entrepreneurs, (2) explore the environment for entrepreneurship, and (3) provide information about where Turkey stands in the global business environment in terms of its entrepreneurial activities.

We collected the data through the standard questionnaire designed by the Global Entrepreneurship Monitor (GEM)[i] research program. GEM is an ongoing academic project designed to collect data annually from 42 countries to study the entrepreneurial behaviour across nations. Turkey joined the GEM project for the first time in 2006, which makes the data used in the current study original and exceptionally well suited to make international comparisons. Although there are few firm-level studies about small businesses in Turkey (e.g., Alpkan et al., 2007; Kozan et al., 2006; Muslumov et al., 2005; Ozcan, 1995), there exists no study on investigating the behaviour of Turkish entrepreneurs.

In the previous literature, "entrepreneurial activity" is defined as "any attempt to create a new business enterprise or to expand an existing business by an individual, a team of individuals, or an established business" (Reynolds et al., 2005). Based on that, we determine the percentage of entrepreneurs in Turkey and further we classify them as either early-stage entrepreneurs (ESE) or established entrepreneurs (EE). The early stage entrepreneurs are adults who are actively involved in either starting or managing a business they will wholly or partly own, which is less than three and a half years old. The established entrepreneurs are adults who own and manage a business that has paid wages or salaries for more than 42 months. 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, on the other hand, indicates the percentage of the population actively involved in running businesses that proved to be sustainable (Bosma and Harding, 2006). Our study is the first attempt that provides information about the demographic characteristics

of both types of entrepreneurs and about their perceptions of the institutional and legal environment.

The environment for entrepreneurship is important for new firm creation (e.g., Chow, 2006; Begley et al., 2005). Entrepreneurial decisions differ depending on the environment in which they are taken (e.g., McGrath et al., 1992; Smallbone and Welter, 2001). Wennekers et al., (2002) argued that technology, level of economic development, culture, and institutions influence the demand for entrepreneurship by creating opportunities for start-ups. Therefore, when we explore the entrepreneurship in Turkey, we try to determine how Turkish entrepreneurs perceive their environment.

According to the literature, entrepreneurship varies widely across nations (e.g., Masuda, 2006). While most studies have explored the individually relevant determinants of entrepreneurship for one nation (e.g., Grilo and Irigoyen, 2006; Parker, 2004), exploring the cross-country differences remains idle (e.g., Freytag and Thurik, 2007). As mentioned by Davidsson and Magnus (2002), "cross-country differences in the degree of productive entrepreneurial activity are likely candidates for explaining part of observed cross-country differences in economic performance". Through identifying Turkey's place in the world with respect to its entrepreneurial activities, we might also partially explain its comparative economic performance.

The article provides brief overview of previous studies and presents information about the small business environment in Turkey, then, explains in detail the research design and the data collection methods, and finally presents the research findings and discusses their implications.

2 The Small Business Environment in Turkey

Small and medium-sized enterprises (SMEs) constitute a major part of the Turkish economy, accounting for a large proportion of the country's businesses and total employment. The SME sector, including services, accounted for 99.8% of the total number of enterprises, 76.7% of total employment, 38% of capital investment, 26.5% of value added, roughly 10% of exports and 5% of bank credit in 2000. Therefore, while SMEs dominate the economy in terms of employment, they evidently operate with comparatively little capital equipment, generate relatively low levels of value added, make only a small contribution to Turkish exports and receive only a marginal share of the funds mobilized by the banking sector. In the manufacturing sector, while 77.3% of the wage earners are male, only 22.7% are female. The average age of enterprises in the manufacturing sector is 9.1 years.

SMEs are usually family businesses and do not have regular employees. The average number of people employed is 4.8 and they are distributed across industries as follows: metallic goods: 26.1%, textiles, clothing and leather goods: 25.6%, wood and furniture: 24.3%, food and drink: 12.7%, paper: 3.9%, other sectors: 7.4%.

The export-led growth strategy in the 1980s stimulated the productivity and exports increase until Russia and Asia crises and İzmit earthquake in 1999. The financial problems in the banking sector, the low rate of foreign investment, and latency of the applications of privatisation policies put the Turkish economy into big economic crises in November 2000 and in February 2001. As a result, the interest rates increased, Turkish Lira devaluated, and the flexible exchange rate started to be applied. SMEs found themselves in a different legal and economic environment. The government decreased the

direct export subsidies because of the big budget deficit and many sectors were threatened by their competitors in Asia. Facing all of these obstacles, SMEs realized the need to find ways to increase productivity. In fact, the value added, the export shares and investments of high- tech products increased, indicating a movement in the manufacturing sector from low tech to medium tech products (TEPAV, 2007).

There are many problems that prevent the international competitiveness of Turkey from being sustainable. First of all, 84% of the investments in innovation are for buying new machines and equipments, while only 5% are for skilled labour, 7% are for Research and Development, and 2% are for getting licenses, which indicates that SMEs are mainly using existing technology. The legal rights of the Turkish shareholders/owners index are half of those in OECD and European countries, indicating the lack of a trustworthy legal environment (World Bank, 2005). The tax rates and prices for telecommunication and energy sectors and credit histories for SMEs prevent most financial institutions from providing financial support.

3 Data and Methodology

We use standard questionnaires of GEM[ii] to collect information about the demographic characteristics of SMEs and how they perceive their institutional and legal environment. The data collection method consists of two parts: adult population survey (APS), and national expert survey (NES) (Reynolds et al., 2005). The APS first classifies individuals as entrepreneurs versus non-entrepreneurs according to Reynold's (2005) definition of "entrepreneur" and then categorises them as early-stage or established entrepreneur. Afterwards it determines their demographic characteristics and their sector structure.

We used Random Sampling Method to select 16,000 adults and conducted Computer Assisted Telephone Interviewing and 2417 individuals responded. In our data collected through APS, out of 2417 respondents, only 147 individuals were seem to be early-stage, 278 individuals were found to be established entrepreneurs. The rest were non-entrepreneurs.

As the second data collection method, NES, a questionnaire that contains 82 questions concerning the assessment of the situation with regard to the entrepreneurial framework conditions (EFC), was given face to face to 36 experts[iii]. We explored the environment for entrepreneurship in Turkey and compared it with the other countries based on 15 conditions that were considered to have a direct impact on the entrepreneurial climate. The degree of the presence of each condition was measured by taking the average of the responses of experts to 5 Likert-scale questions (1 indicates strong disagreement and 5 indicates strong agreement to whether the explained environment does exist in Turkey).

The data allows us to make cross-national comparisons of the entrepreneurial activities between Turkey and some developing and developed countries which participated in the GEM project in 2006. 14 developing countries chosen for comparison are India, Jamaica, Indonesia, Philippines, Peru, Colombia, Brazil, Chile, Thailand, Mexico, Uruguay, Malaysia, South Africa, and Argentina. 21 developed countries are listed as Slovenia, Greece, Spain, Singapore, Italy, France, Sweden, United Kingdom, Germany, Netherlands, Japan, Belgium, Australia, Finland, Canada, Denmark, Iceland, United States of America, Ireland, Norway, and United Arab Emirates[iv].

4 Results

There is evidence that the relationship between income per capita and entrepreneurial activity is not linear. Figure 1 show per capita in income in US dollars on the horizontal axis against the Total Early-Stage Entrepreneurial Activity (TEA) rate (the percentage of ESE in the adult population) on the vertical axis. This provides evidence of a U-shaped relationship between entrepreneurial activity and income per capita. Entrepreneurial activity is highest amongst the poorest countries, but appears to decline as income per capita increases to between 25-35000 US dollars. Thereafter, however, there is some evidence that entrepreneurial activity rises as income per capita rises above 40000 US dollars.

Turkey is classified as a middle-income developing country with an approximately 8663 US dollars per capita income in Power Purchasing Poverty. Given that, we put Turkey on the left side and below the curve based on the data we collected in the current study about the percentage of ESE in our sample. Turkey has a lower TEA rate than that expected for a country with the same level of per capita income. It is interesting to note that Turkey shares a similar entrepreneurial position, as do Mexico, Russia and South Africa. Russia and South Africa have emerged from a past where entrepreneurial activity was suppressed by the prevailing legal and political systems. Entrepreneurial activity was illegal under the former socialist system in Russia and blacks were suppressed under the appertained system in South Africa.

Insert Figure 1

The average TEA rate is estimated to be 6.07 percent in Turkey, meaning that only 147 of 2417 individuals are found to be ESE. According to the chi-square statistics, this rate is significantly different (lower) than the one for the developing countries, 14.16

percent (chi-square=124.44, p-value=0.00), but is not found to be different from the average rate of the developed countries, 6.09 percent (chi-square= 0.000256, p-value=0.98). This is because the curve is U-shaped and the percentage of new entrepreneurs in Turkey is the same as the established industries in the old industrialized countries, but unlike the newborn developing and dynamic ones. However, in terms of established entrepreneurs, the average Established Entrepreneurship Activities (EB) rate (the percentage of EE in the total adult population) of Turkey (11.5 percent that is 278 out of 2417) is found to be much higher than that of both the developing countries, 9.93 percent (chi-square= 6.0912, p-value= 0.0135) and the developed countries, 6.3 percent (chi-square= 106.7324, p-value= 0.000). One possible explanation may be that Turkish government attention and support have been always more favourable to large firms than small firms (Kurtuluş, 1987).

The ratio of TEA to EB rate shows the level of entrepreneurial dynamism in the economy (Bullvaag et al., 2006, p.9). This ratio is 1.03 for developed countries, 0.67 for developing countries, and 0.53 for Turkey. This can be interpreted as the relatively low level of Turkish entrepreneurial dynamism, which may cause a lack of competitive pressure on the established businesses to increase their productivity.

4.1 Demographic Characteristics of Turkish Entrepreneurs

Several studies have shown that there is a significant difference in the rate of male and female entrepreneurs (Allen et al., 2007, Minniti et al., 2006, Minniti, 2005). The male-female rate of participation in the entrepreneurial activities is 2.42 in Turkey which is similar to the proportion of men and women in the manufacturing sector (Table 1). This

ratio is almost double the ratio of both the developing countries (1.26), and the developed countries (1.64). Insert Table 1

The previous research showed that early stage entrepreneurs in the developing countries are mostly in the 25-34 age group and the ones in the developed countries are usually in the 35-44 age group (Bosma et al., 2007). Further, the early entrepreneurial activity rates are found to be relatively low amongst 18-24 year olds, peak amongst 25-34 year olds and then decline sharply for those above 44 (Levesque and Minniti, 2006). Considering that Turkey is a developing country, the age distribution of Turkish early stage entrepreneurs (that are mostly between 25 and 34 years-old) presented in Table 2 is consistent with the findings of the literature. EE, however, are mostly 35-44 years old.

Insert Table 2

The importance of education on entrepreneurship has been mentioned in the literature. Some studies found that the relationship between education level and the likelihood of becoming an entrepreneur is not strictly linear (Minniti and Bygrave, 2004; Minniti, 2005). Others found education to be an important factor for fostering the entrepreneurship in some countries such as The People's Republic of China (Chow, 2006), Belgium, and Finland (Arenis and Minniti, 2005).

Remarkably, the number of people with post-secondary degree or graduate school experience involved in early-stage entrepreneurial activity in developing (just over 31 entrepreneurs out of every 100 adults), and developed countries (29 entrepreneurs out of every 100 adults), is much more than that of Turkey (6 entrepreneurs out of every 100 adults). However, this dramatic cross-national difference does not exist for the education level of established business entrepreneurs (established business owners that have post

secondary or graduate degree are 17 entrepreneurs out of every 100 adults for developing countries, 26 entrepreneurs for developed countries, and 16 entrepreneurs for Turkey) (Table 3).

Insert Table 3

Household income data is divided into three groups of equal income size. Table 4 shows that Turkish people with higher incomes are more likely to be involved in entrepreneurial activity. Further, when compared with the other developing countries, the percentage of EE among high-income earners is much higher in Turkey.

Insert Table 4

4.2 Sector Distribution

The sector distribution is categorized as: extractive sectors (agriculture, forestry, fishing, and mining); transformative sectors (construction, manufacturing, transportation); business services (the customer is another business); consumer services (restaurants, health, education, social services, and recreation). Bosma and Harding (2007) claim that ESE mostly do business in the consumer-oriented sector in the developing countries, while they are involved in the business-oriented sector in the developed countries. Consistently, according to Table 5, the greatest number of Turkish early stage entrepreneurs is found to be in the consumer-oriented sector (46 percent), followed by transformative sector (34 percent). Further, both the early-stage and the established entrepreneur's rates in the business-oriented services are found to be lower than that of the developed countries.

Remarkably, when compared with both the developed and the developing countries', the number of EE in the extractive sector in Turkey is much higher. It is important to note that our data confirms the SME employment sizes implying that over

80 percent of the both the early stage and the established entrepreneurs employ five people or less.

Insert Table 5

4.4 Export Orientation

Exports have several advantages for economic advancement (Kogut, 1985; Grant et al., 1988). While the majority of the early-stage firms (60.17 percent) have no exports, 10 percent of them already have more than 75 percent of their customers in export markets (Table 6). It is apparent that ESE have more customers outside Turkey than EE have. Entrepreneurs in Turkey are more export oriented than entrepreneurs in other developing countries. In fact, 76-100 percent of the customers of ESE in export market is very close to that of the developed countries. This could be the result of the export-led policy that has been applied since the 1980s.

Insert Table 6

4.5 Degree of Innovation

As Gardner (1994) argued "entrepreneurial behaviour is based on vision and focuses on innovation". Many entrepreneurs are important agents of innovations (Venkataraman, 1997). In order to measure innovation, we asked entrepreneurs how they evaluate the newness of their product or service, the competition they face, and the novelty of their technology.

In Table 7, 34 percent of ESE and 43 percent of EE claim that they offer products that are new to all customers. Probably, established firms have more financial means and knowledge to invent and/or improve products or services (Ahuja and Lampert, 2001). According to the literature, no matter what a country's average level of per capita income

is, customer-oriented innovation is relatively rare (Minniti et al., 2006). However, Turkey's level of customer-oriented innovation is unusually high compared to international standards. Turkish entrepreneurs think that their products and/or services are new for their customers; although, these products may not be new in the international market.

Insert Table 7

3 percent of ESE and 0.83 percent of EE say that they have no competitors that sell the same product. These percentages are relatively small compared to those in the developing and developed countries (Table 8). While most businesses offer the same products as theirs, it appears that Turkish entrepreneurs perceive their market to be more competitive and do not use product differentiation strategies.

Insert Table 8

"Technological innovation in production" is important to lower production costs and meet changing consumer needs (Saka-Helmhout and Karabulut, 2006). The majority of Turkish entrepreneurs state that they do not use new technology (Table 9). The average usage of the latest technology is 1.32 by ESE and 2.47 percent by EE. These rates are less than the technology usage rates of the entrepreneurs in other developing countries.

Insert Table 9

4.7 The Environment for Entrepreneurship in Turkey

Table 10 presents the perceptions of Turkish experts about the framework conditions for entrepreneurship. Financial support (the accessibility to financial resources), government support policies (priority given to new firms in public procurement tenders), and government regulation policies (required permits and licenses within a week and the

amount of taxes) are stated as the conditions that are perceived less. In fact, for these conditions, Turkish experts stated lower values for the existence of these conditions than the experts in the developed countries.

Although, the Turkish government supports the implementation of the anti-bureaucracy program, the experts stated very low scores for the existence of tax incentives. The evidence from the expert questionnaire confirms that the protection of intellectual property is frequently cited as one of the basic reasons for the lack of the transfer of science and technology in developing countries. Hence, the score Turkish experts stated for affording the latest technology is worse than the one in the developed countries.

Similar to the other developing countries, the Turkish education system provides little education related to entrepreneurship compared to that of the developed countries. Experts' responses show that although the degree of the access to the physical infrastructure is not different from the other countries' standards, the commercial and professional infrastructure is lower than that of the developed countries. The responses of the experts confirm that they can access telecommunication services easily; however, they find it costly.

Despite all these unfavourable entrepreneurial conditions, the experts stated comparably higher average values for the existence of ease of entry and market openness, good opportunities for new venture creation, young population composition, and positive attitudes towards entrepreneurship. In fact, the scores for these conditions are not significantly different from the developed countries'. We believe the existence of these

conditions may indicate that Turkey has good potential to provide favourable conditions for small new businesses.

Insert Table 10

5 Conclusions and Discussion

The present study is the first attempt to explore the entrepreneurial activities in Turkey at individual level. Turkey took part in the General Entrepreneurship Monitor Data (GEM) project for the first time in 2006, which makes the data used in this study original and exceptionally well suited to make international comparisons.

Our findings show that the early-stage entrepreneurial rate in Turkey is much lower than the one for the developing countries, whereas, established business entrepreneurship rate is relatively high. In fact, big and family-owned companies dominate the manufacturing sector and they are the ones that have been supported by the government (Kurtuluş, 1987). Further, the ratio of the early-stage to established-business entrepreneurship activities is relatively very low among the developed and the developing countries, indicating the lack of dynamism in the entrepreneurship facilities, which may also lead to a lack of innovation and competition.

The low female participation rate in entrepreneurial activities in most countries is even more remarkable for Turkey, which emphasizes the necessity of finding incentives to encourage females to become entrepreneurs. Consistent with the literature, the percentage of ESE are found to be relatively low amongst 18-24 year olds, peak amongst 25-34 year olds and then decline sharply for those above 44. In order to increase the participation of females and young people in entrepreneurial activities, there is a need to

improve vocational training programs to equip students with technical skills and foster entrepreneurial attitudes in young minds.

Supporting the claim of Bosma and Harding (2007), ESE mostly does business in the consumer-oriented sector in Turkey. Most EE, however, are found to be in the extractive sector. This supports TEPAV report (2007) concluding the existence of the movement in the manufacturing sector from low tech to medium tech products. The percentage of both early-stage and established entrepreneurs in the business-oriented sector is relatively lower than the other countries'. In fact, the business-to-business is a relatively new phenomenon in Turkey.

The percentage of Turkish early entrepreneurs that have most of their customers outside the country is more than double of that of the other developing countries. This may be the result of the export-led policy that has been applied since the 1980s. However, the international competition and the real currency appreciation since 2003 threatened the textile, clothing and leather industries, which represent one third of total manufacturing exports and employment. In fact, the intensity of competition are found to be comparably very high in terms of offering the same products by many businesses, yet, the degree of the novelty of the technology rates is found to be comparably very low. Protection of intellectual property is frequently cited as one of the basic reasons for problems in the area of the transfer of science and technology, consistent with the result of Demirbas (2006). It might also have an effect on the domestic and foreign companies choose Turkey as a location for their base.

Availability of finance is an important factor in facilitating entrepreneurial activity, especially in the early stages of a new venture. The provision of equity and debt

finance, venture capital and initial public offering (IPO) in Turkey are very poor. Founders of new firms depend largely on their own or their family's savings. Many entrepreneurs are unaware of the various forms of financial support available to them by the state. Small businesses encounter difficulties when they borrow money from banks because of: (a) the high interest rates, high costs of loan guarantees and short repayment terms; (b) extensive documentation requirements and the amount of time it takes for banks to process applications, and; (c) banks preference of large firms.

Another important inhibitor of entrepreneurial activity is the complexity of access to government programs aimed to support entrepreneurs, compounded with very poor marketing of the programs. The firms cannot obtain government assistance from a single agency and furthermore, the type of assistance that is available is not necessarily adequate. The Turkish government has established Enterprise Development Centre for new and growing firms, but not only is their number limited, but also they are not sufficiently integrated within the local environment.

In sum, this study concludes that although there are many obstacles encountered by Turkish entrepreneurs, such as inadequate government Research and Development policy, insufficient intellectual property rights, and lack of information on technology, lack of financial sources, the positive attitudes of people towards entrepreneurship and the existence of the market openness to rapid change signal that there is always new potential for entrepreneurs.

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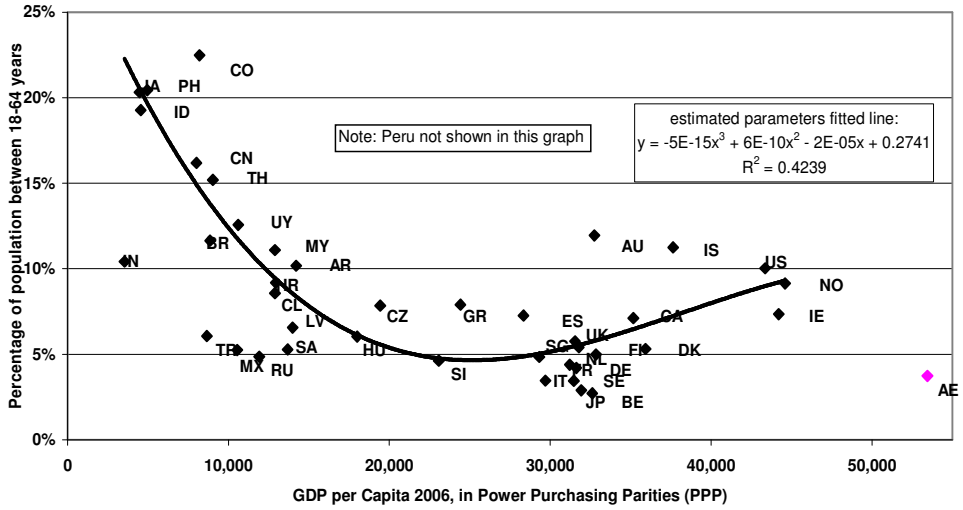
Notes:

1. Detailed information about the GEM project can be found at www.gemconsortium.org
2. Authors can provide the questionnaires upon request.
3. Turkish Experts include: "professionals" (e.g. venture capitalists, academics, bankers, consultants, politicians etc), and; "entrepreneurs" (they are selected primarily on the basis of their active entrepreneurial experience in Turkey).
4. The country classification is based on World Economic Outlook Database, 2006.

Figure 1 Total entrepreneurial activity by economic development and fitted parabolic trend:
2006



Source: Bosma and Harding (2007)

Table 1 Entrepreneurial activity by men and women (% in TEA and EB)

	TURKEY	DEVELOPING COUNTRIES	DEVELOPED COUNTRIES

TEA (male)	71%	56%	60%
TEA (female)	29%	44%	40%
TEA : Male/Female Ratio	2.42	***1.26 (12.99, 0.000)**	***1.72 (7.27, 0.007)**
EB: (male)	74%	62%	68%
EB (female)	26%	38%	32%
EB: Male/Female Ratio	2.77	***1.66 (15.68,7.5E-05)**	***2.11 (4.44, 0.003)**

The chi-square and p-values for the differences in the proportions test is presented in the parentheses.
*The proportion is significantly ($p \leq 0.05$ level) different than the proportion for Turkey.

Table 2 Entrepreneurial activity by age (% in TEA and EB)

	TURKEY	DEVELOPING COUNTRIES	DEVELOPED COUNTRIES
TEA: Age category 18-24	14.3	17.54	15.00
TEA: Age category 25-34	44.7	35.11	33.66
TEA: Age category 35-44	27.2	25.68	34.78
TEA: Age category 45-54	11.1	14.64	26.55
TEA: Age category 55-64	2.66	7.03	16.84
EB: Age category 18-24	6.66	6.28	12.01
EB: Age category 25-34	27.4	22.45	19.44
EB: Age category 35-44	34	31.45	33.99
EB: Age category 45-54	20.7	26.30	38.80
EB: Age category 55-64	11.2	13.53	27.75

Table 3 Entrepreneurial activity by educational level (% of adults)

	TURKEY	DEVELOPING COUNTRIES	DEVELOPED COUNTRIES
TEA: some secondary degree	5.87	12.29	11.14
TEA: secondary degree	7.5	15.07	12.09
TEA: post-secondary degree	4.26	16.03	14.53
TEA: graduate experience	2.23	15.01	15.12
EB: some secondary degree	13.7	10.37	11.57
EB: secondary degree	9.13	9.04	11.68
EB: post-secondary degree	8.65	9.17	13.34
EB: graduate experience	8.1	8.60	13.79

Table 4 Entrepreneurial activity by income level (% of adults)

	TURKEY	DEVELOPING COUNTRIES	DEVELOPED COUNTRIES
TEA: lowest household 33 ptile	1.93	9.98	10.48
TEA: middle household 33 ptile	4.41	11.83	10.80
TEA: highest household 33 ptile	7.1	10.39	11.92
EB: lowest household 33 ptile	6.52	6.25	9.51
EB: middle household 33 ptile	8.6	8.55	11.11
EB: highest household 33 ptile	10.7	8.75	12.10

Table 5 Sector Distribution of Entrepreneurial Activities (% in TEA and EB)

SECTORS	TURKEY	DEVELOPING COUNTRIES	DEVELOPED COUNTRIES
TEA- Extractive sector	8.02	5.53 (1.85,0.17)	7.92 (0.012,0.91)
TEA-Transforming sector	34.4	34.34 (8.6E-06, 0.9)	30.21 (0.985, 0.32)
TEA-Business oriented services	12	8.55 (2.44, 0.12)	***27.38** **(16.695, 4.39E-05)**
TEA-Consumer oriented services	45.6	51.58 (2.04, 0.15)	41.76 (0.86, 0.35)
EB-Extractive sector	32.9	***10.73** **(11.0, 2.09E-26)**	***16.08** **(54.45, 1.59E-13)**
EB-Transforming sector	29.7	35.17 (3.334, 0.068)	34.46 (2.676, 0.10)
EB-Business oriented services	5.35	7.54 (1.78, 0.181)	**24.75** **(55,1.1E-13)**
EB-Consumer oriented services	32.1	46.56 (21.6, 8.28E-06)	32.82 (0.078, 0.779)

The chi-square and p-values for the differences in the proportions test is presented in the parentheses.
*The proportion is significantly ($p \leq 0.05$ level) different than the proportion for Turkey.

Table 6 Export Intensity of Entrepreneurial Activity (% in TEA and EB)

NUMBER OF CUSTOMERS	TURKEY	DEVELOPING COUNTRIES	DEVELOPED COUNTRIES
TEA: no customers outside country	60.2	***71.09** (8.48, 0.003)	***42.34** **(18,2.14E-05)**
TEA: 1-25% of customers outside country	22.5	17.79 (2.09,0.147)	***42.16** **(22,1.62E-06)**
TEA: 26-75% of customers outside country	7.49	7.09 (0.03,0.85)	***14.61** **(5.9,0.015)**
TEA: 76-100% of customers outside country	9.89	***4.03** **(11.8, 0.00)**	11.94 (0.59, 0.44)
EB: no customers outside country	72.2	73.67 (0.28, 0.59)	***45.06** **(79,5.3E-19)**
EB: 1-25% of customers outside country	19	19.53 (0.04,0.82)	***42.31** **(60,9.7E-15)**
EB: 26-75% of customers outside country	4.58	4.37 (0.02,0.87)	***15.18** **(24, 1.0E-06)**

EB: 76-100% of customers outside country	4.26	2.44 (3.2, 0.07)	***9.34** **(8.36,0.000)**

The chi-square and p-values for the differences in the proportions test is presented in the parentheses.
*The proportion is significantly ($p \leq 0.05$ level) different than the proportion for Turkey.

Table 7 Newness of products offered to customers (% in TEA and EB)

% of ENTREPRENEURS	TURKEY	DEVELOPING COUNTIRES	DEVELOPED COUNTRIES
TEA: product new to all customers	34.1	***20.23** **(16,5.03E-05)**	***18.89** **(21.4,11E-06)**
TEA: product new to some customers	31.3	30.40 (0.05, 0.81)	35.65 (1.19,0.27)
TEA: product new to none customers	34.6	***49.38** **(12,0.00)**	***54.89** **(24,1.14E-06)**
EB: product new to all customers	43.2	***19.10** **(88,6.77E-21)**	**14.88** **(160, 1.3E-36)**
EB: product new to some customers	26.7	23.88 (1, 0.3)	23.71 (1.2, 0.26)
EB: product new to none customers	30.1	***57.02** **(74,6.9E-18)**	***71.31** **(215, 9.4E-49)**

The chi-square and p-values for the differences in the proportions test is presented in the parentheses.
*The proportion is significantly ($p \leq 0.05$ level) different than the proportion for Turkey.

Table 8 Intensity of competition (% in TEA and EB)

% of ENTREPRENUERS	TURKEY	DEVELOPING COUNTRIES	DEVELOPED COUNTRIES
TEA: Many businesses offer same product	72.2	***55.93** **(15,0.00)**	***54.81** **(17, 3E-05)**
TEA: Few businesses offer same product	24.6	***35.12** **(7, 0.00)**	***40.60** **(15, 8,1E-05)**

TEA: None businesses offer same product	3.12	*8.95 (6, 0.01)	*14.96 (16, 6.1E-05
EB: Many businesses offer same product	75.8	*69.36 (5, 0.02)	*67.05 (9.3, 0.00)
EB: Few businesses offer same product	23.4	25.43 (0.56,0.45)	*33.07 (11, 0.00)
EB: None businesses offer same product	0.83	*5.21 (11, 0.00)	*10.72 (29, 7.8E-08

The chi-square and p-values for the differences in the proportions test is presented in the parentheses.
*The proportion is significantly ($p \leq 0.05$ level) different than the proportion for Turkey.

Table 9 Usage rate of the technology (% in TEA and EB)

% of ENTREPRENEURS	TURKEY	DEVELOPING COUNTIRES	DEVELOPED COUNTRIES
TEA: Uses very latest technology (only available since last year)	1.32	*14.44 (20, 6.8E-06)	*15.03 (21, 3.6E-06)
TEA: Uses new technology (1 to 5 years)	14.4	*22.48 (5.3, 0.02)	*23.97 (7, 0.006)
TEA: Uses no new technology	84.3	*63.08 (28, 1.32E-07)	*72.32 (10, 0.001)
EB: Uses very latest technology (only available since last year)	2.47	*5.55 (4.7, 0.03)	*11.35 (21.5, 3.5E06)
EB: Uses new technology (1 to 5 years)	8.14	*14.92 (9, 0.002)	*14.85 (9.68, 0.001)
EB: Uses no new technology	89.4	*79.53 (15.6, 7.7E-05)	85.59 (3.1, 0.07)

The chi-square and p-values for the differences in the proportions test is presented in the parentheses.
*The proportion is significantly ($p \leq 0.05$ level) different than the proportion for Turkey.

Table 10 Overview of entrepreneurial framework conditions

Entrepreneurial Framework Conditions	TURKEY	DEVELOPING COUNTRIES	DEVELOPED COUNTRIES
Financial support	1.76	2.40 (-1.079,0.33)	*2.97 (-6.7, 0.001)
Government regulation & support policies	1.9	2.21 (0.189, 0.86)	*2.86 (6.47, 0.01)

Government programs	2.05	2.31 (1.016, 0.356)	***2.94** **(-3.24, 0.02)**
R&D transfer	2.14	2.16 (0.64, 0.55)	2.70 (-2.13, 0.086)
Education and training - primary & secondary	2.36	2.4 (-2.1, 0.086)	***2.57** **(-3.15, 0.025)**
Intellectual Property Rights	2.4	2.47 (-2.5, 0.064)	***3.52** **(-5.5, 0.005)**
Ease of entry & market openness	2.95	2.675 (0.96, 0.38)	2.875 (0.82, 0.45)
Entrepreneurial capacity	2.51	2.59 (0.3,0.77)	2.85 (1.6,0.18)
High growth firms	2.53	2.78 (-0.64, 0.56)	3.33 (-2.22, 0.09)
National culture	2.78	2.80 (-1.7, 0.15)	3.06 (-0.26, 0.8)
Commercial and professional infrastructure	2.85	3.02 (-1.7, 0.16)	***3.50** **(-2.8, 0.049)**
Population composition	2.9	3.21 (-1.7, 0.16)	3.49 (-2.28, 0.085)
Opportunities for new venture creation	3.18	3.47 (-2.7, 0.06)	3.50 (-1.25,0.28)
Access to physical Infrastructure	3.32	3.50 (1.1,0.33)	4.02 (-0.88,0.425)
Attitude towards entrepreneurship	3.69	3.54 (1.7, 0.16)	3.52 (1.7, 0.15)

The t-statistics and the p-values to compare the mean values are presented in parentheses.
*The mean value is significantly ($p \leq 0.05$ level) different than the mean value for Turkey.