Entrepreneurship and Innovation Eco-system in Israel

Israel GEM 2018/2019 Report

The Ira Center for Business, Technology and Society

Ben Gurion University

Prof. Emeritus Ehud Menipaz

Yoash Avrahami, M.Sc.

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Ben-Gurion University of the Negev

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GEM
Global Entrepreneurship Monitor

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Introduction

In my capacity of Outgoing President of the Association of GEM National Teams (Global Entrepreneurship Monitor, GEM), Head of the Research Program in Israel, and Chair of the Ira Center for Business, Technology and Society, I am pleased to submit the findings of the 2018/2019 study.

Israel is one of the ten countries that established the International Research Program in 1999, and since then it has participated in it continuously. Since its inception, 100 countries participated in this global study. 49 countries participated in the 2018/2019 study.

The study is an international, comparative, multiannual study of entrepreneurship and economic growth. It is a multinational coordinated study, with the objective of providing assessments and annual metrics about emerging entrepreneurship and the enterprise climate in these countries. The uniqueness of the study stems, inter alia, from its focus on researching entrepreneurial behavior globally. This consortium has the largest up-to-date repository of data about emerging and young entrepreneurship of entrepreneurs as individuals, not as organizations. The study in Israel is conducted at the Ira Center for Business, Technology and Society, Ben-Gurion University, which provides academic sponsorship. The Ministry of Economy and the Israel Small and Medium Enterprises Authority have been supporting the study for many years.

Among the key findings of the 2018/2019 study:

- Decrease in TEA from 12.7% in 2017 to 10.9% in 2018.
- Significant increase in TEA in the Arab sector, to 8.9% in 2018/2019, after the decrease observed in 2016-2017.
- Significant deviations in the level of entrepreneurship in the orthodox sector, with women showing a level of 13.0% compared to 7.4% among men.
- In overall TEA level, Israel ranks seventh among the 31 developed GEM countries, and 18 out of all 49 participating countries in 2018/2019.
- The EEA rate in Israel, which manifests the level of innovation among organizations and large established companies, increased in 2018/2019 to a level of 7.2% out of the entire population, compared to 6.1% in 2017 and 5.2% in 2016. This is particularly prevalent among new immigrants.
- The rate of entrepreneurship among businesses that are active more than 3.5 years increased slightly in 2018/2019 to 3.6%.
- In terms of fear of failure to start a new business, compared to developed GEM 2018/2019 countries, Israel ranked third with 60.2% in the high level of fear of failure, as perceived by the adult population in those countries. This year for the first time, fear of failure among women is lower than among men by 2%.
- The Improvement-Driven Opportunity (IDO) index, which defines the level of motivation for entrepreneurship out of choice, increased in 2018/2019 to 43.9%, the highest score of Israel in the last four years, placing it 30 in GEM.
- The intention of the adult, nonentrepreneurial population in Israel to start a new business within the next three years increased significantly to 31.9%. This is the highest level observed in the GEM study in the past 11 years. This trend is prevalent in the minorities sector, as well as among women.
- During the last two years, there was a significant increase in the rate of high and mid-tech entrepreneurship out of all entrepreneurship in the orthodox and minorities sectors.

- The ecosystem of entrepreneurs in Israel is largely based on the relevant social network, as well as on a culture of entrepreneurship that glorifies the social status of the entrepreneur.
- The use of digital platforms for enterprises is on the rise, and is particularly popular among the orthodox population, double than the average in the general population in Israel. This points to a willingness to integrate into the national economy in ways that conform to the orthodox lifestyle.

The report also includes recommendations for policymakers and thought leaders who can improve innovation, entrepreneurship and interorganizational entrepreneurship. Similar to other countries, different government levels – federal, local, regional and municipal – are all involved in the promotion of the program for improving the emerging businesses ecosystem, small and medium-size businesses, and new programs for large companies through internal organizational enterprises.

In summary, it is necessary to promote economic and security certainty, improve competition in the economy, prevent giving priority to large, 'connected' companies, improve opening conditions for new small businesses, and improve discriminatory taxation. These will most probably contribute to discouraging apprehension and fear among new entrepreneurs.

We would like to thank the Ministry of Economy and Industry; the Minister of Economy and Industry Mr. Eli Cohen; the Director of the Israel Small and Medium Enterprises Authority, Mr. Ran Kiviti; and Dr. Nir Ben-Aharon and the ministry's team. We would also like to thank Ben-Gurion University of the Negev; the IRA Center, named after fighter pilot, pilot trainer and engineer Captain Ira Lahat-Gertzberg; and the Ira Center for Business, Technology and Society for their continued support during this study and for more than 12 years. We also extend our thanks to the thousands of people who participated and participate in the surveys, and to the dozens of key economy and industry people in Israel who provided their opinion about the Israeli ecosystem of innovation and entrepreneurship. I would like to cherish the memory of Prof. Miri Lerner (Z"L), who led the study in its first years, and the contribution of Yoash Avrahami (may he live long), who has been coordinating the study since its inception loyally and most professionally.

We thank our families, who had to miss out on spending quality time with us so that we could devote ourselves to this project. We appreciate the opportunity to contribute to the promotion of innovation and entrepreneurship in Israel over the years, and hope to continue endorsing this important economic, national and academic endeavor.

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Executive Summary

GEM is an international, comparative, multiannual study of entrepreneurship and economic growth. 49 countries participated in the 2018/2019 study. The study was first launched in 1999 and operates as a coordinated multinational research program. Its objective is to provide assessments and annual metrics about emerging entrepreneurship and the enterprise climate in participating countries. The uniqueness of the study stems, inter alia, from its focus on the entrepreneurial behavior of entrepreneurs as individuals, and not on a business as an organization.

The world GEM consortium has a large and up-to-date repository of data about emerging and young entrepreneurship. The GEM study in Israel is conducted at the Ira Center for Business, Technology and Society, Ben-Gurion University, under its academic and financial sponsorship, and is supported by the Ministry of Economy and Industry's Israel Small and Medium Enterprises Authority.

Objectives

- Characterize the entrepreneurship process in Israel and worldwide throughout all its stages, from emerging entrepreneurship all the way to the stage of an established and sustainable business.
- Examine whether there are differences between countries in level of activity, philosophies, and entrepreneurial aspirations.
- Identify and recognize the factors of differences in the scope and nature of entrepreneurship between different countries.
- Provide recommendations to political and government representatives on a policy that encourages and contributes to promoting entrepreneurship as a vital component in a country's economic, technological and occupational development.

Methodology of the 2018/2019 Study

1. The representative sample of 2,000 people included four population sectors: Veteran Jewish sector with 1,240 participants (62.0%), the Jewish orthodox sector with 160 participants (8.0%), Immigrants from CIS countries with 220 participants (11.0%), and the Arab-Israeli sector with 380 participants (19.0%). The surveys were conducted via fixed-line phones, mobile phones, and an Internet panel.
2. National Experts Survey (NES) in Israel, including 36 experts from nine areas defined by the GEM's study model as essential for the entrepreneurial ecosystem.
3. Study of Entrepreneurial Employee Activity (EEA) as a parallel and complementary activity to Total Early-Stage Entrepreneurial Activity (TEA) and its possible implications.
4. The international and national metrics reflect a multidimensional approach to entrepreneurship as an activity that combines norms, aspirations, perception of personal entrepreneurial skills, as well as social, political, economic and governmental elements.

Main Findings of the 2018/2019 Israel Study

1. Decrease in TEA level, from 12.7% in 2017 to 10.9% in 2018/2019.
2. Marked increase in TEA level in the Arab sector in 2018/2019, following the drops in 2016-2017, almost to the level observed in 2015!
3. Significant deviations in entrepreneurship level in the orthodox sector, with women showing a level of 13.0% compared to 7.4% among men. An unusual fluctuation in the level of orthodox entrepreneurship raises serious questions about the reliability of the questionnaire in this sector.
4. In TEA level, Israel ranks seventh among the 31 developed GEM countries, and 18 out of all 49 participating countries in 2018/2019.
5. The EEA level in Israel in 2018/2019 out of the total population increased to a level of 7.2%, compared to 6.1% in 2017 and 5.2% in 2016. EEA level is significant in terms of innovation among large and well established organizations as a condition for sustainability. This is particularly prevalent among new immigrants.
6. The level of entrepreneurship among veteran businesses that are active more than 3.5 years increased slightly in 2018/2019 to 3.6% according to Israel's calculation. GEM's calculation is different, and places EBs in Israel at a level of 4.2% (weight of a different population).
7. In terms of fear of failure starting a new business, compared to GEM 2018/2019 developed countries, Israel ranked third with 60.2%, a high level of fear of failure, as perceived by the adult population in those countries. This year for the first time the level of fear of failure is 2% lower among women than among men. This is the highest level of fear measured in the study in Israel so far, and it manifests lack of confidence in the ability to start a new business and survive. Israel follows Greece in this area. This finding points to the need to promote economic and security certainty, improve competition in the economy, prevent giving priority to large, connected companies, improve opening conditions for new small businesses, and improve discriminatory taxation.
8. The Improvement-Driven Opportunity (IDO) index, which measures the level of motivation for entrepreneurship out of choice, increased in 2018/2019 to 43.9%, the highest score of Israel in the last four years, placing it 30 in GEM. Salient increases were observed among women in the Arab sector, in the new immigrants sector, and in the veteran Jewish sector. The orthodox sector is also prevalent in the high rate of this index among men.
9. The intention of the adult, nonentrepreneurial population in Israel to start a new business within the next three years increased to 31.9%. This is the highest level observed in the GEM study in the last 11 years. This trend is prevalent in the minorities sector, as well as among women. The improvement in the relevant ecosystem, partly due to government initiatives, contributes apparently to promoting these intentions.
10. In the last two years, there was a significant increase in the rate of high and mid-tech entrepreneurship out of all entrepreneurship in the orthodox and minorities sectors.

11. The ecosystem of entrepreneurs in Israel is largely based on the relevant social network, on a culture of entrepreneurship that glorifies the social status of the entrepreneur, and on the commercialization of R&D products. The two main factors that limit entrepreneurship in the ecosystem in Israel are still bureaucracy and education for entrepreneurship in elementary, middle and high schools. The new National Entrepreneurship Context Index (NECI) ranked Israel number 28 in 2018/2019, out of 54 countries studied, of which only 49 participated in the full study in 2018/2019.
12. The use of digital platforms for enterprises is on the rise, and is particularly popular among the orthodox population, double than the average in the general population in Israel. This points to a willingness to integrate into the national economy in ways that conform to the orthodox lifestyle.
13. The level of ease of starting new businesses in Israel in 2018/2019 was measured with a direct question for the entire population, and showed that 82.1% responded that it is not easy to start a new business in Israel, whereas only 17.9% said that it is easy to start a new business in Israel. The Arab sector is very prominent with 45.4% responding that it is easy to start a new business in Israel. We do not have a reasonable explanation for this finding, unless it is related to circumventing the legislation and regulation that are enforced in the Jewish sectors, and to how minorities adapt to an environment that limits economic activity.
14. The very low level of perception of growth and increased occupation in all EBs in 2018/2019 requires special attention!

1. Introduction

1.1 Terminology

Entrepreneurship: Any activity aimed towards the formation of an enterprise or a business organization, expansion or transformation of an existing business or the creation of independent employment of an individual or a team through a business organization.

Total Early Stage Entrepreneurial Activity Rate (TEA): The percentage of entrepreneurs among the adult population, ages 18-64, who are at one of the first two stages of forming a business:

a. The Creation and Formation stage, during which the new enterprise has not paid out wages of any kind for over three months (Nascent).

b. The Young Business stage – salary or wages have been paid out for between 3-42 months (Baby Business).

Established Businesses (EB): Entrepreneurs who are managing a business they own, which was founded 3.5 years previously or more.

Entrepreneurial Employee Activity (EEA): The rate of individuals ages 18-64 in the population that are currently employed leading new developments or business ideas, or implementing new activities for the employer. This includes developing or launching new goods or services, or setting up a new subsidiary.

Opportunity-Driven Entrepreneurs: Entrepreneurs who establish a business, whose main motivation is autonomy and self-management.

Necessity-Driven Entrepreneurs: Entrepreneurs who establish a business as a result of the lack of other options for work and sustenance.

Improvement-Driven Opportunity (IDO) index: An index that compares improvements in entrepreneurial motivation drivers, and assesses the key motivations among entrepreneurs when choosing to start a new business. The study's assumption was that the motivations for opportunity-driven entrepreneurship are aspirations to independence and nonreliance, and to increase income ('making more money', getting richer).

Rapid-Growth Entrepreneurship: Percentage of entrepreneurs in the adult population who declare their ambition to employ 19 or more employees within five years of the research period (and, conversely, employing ten or more employees and growth of over 50% within five years).

Entrepreneurial Intentions in the Adult Population: The number of respondents within the adult population, ages 18-64 (not including actual entrepreneurs) who stated their intentions of forming a new business in the next three years.

Fear of failure that prevents starting a business: The number of respondents within the adult population, ages 18-64 (not including actual entrepreneurs) who stated that fear of failure will prevent them from starting a business.

Equality Perception Index among the adult population (not including actual entrepreneurs): Percentage of respondents among the adult population, ages 18-64, that answered 'Yes' to the question: "In Israel, most people would prefer everyone to have a similar standard of living."

National Entrepreneur Context Index (NECI): A new index introduced in 2018/2019 that is based on the National Experts Survey (NES) of each country that participates in the study. The index is based on 12 framework conditions of entrepreneurship, and enables to assess environmental conditions that facilitate entrepreneurship in the economy being measured. The index also evaluates entrepreneurial strengths and weaknesses, provides guidelines for corrective actions, and contributes to the development and growth of entrepreneurship in the country. It ranks countries according to the score obtained in their NES in the year of the study.

Gig Economy: Activity of an economic sector based on partial and temporary employment, and the work of independent contractors (freelancers) in new and evolving areas. Most of the gig economy's activity takes place online.

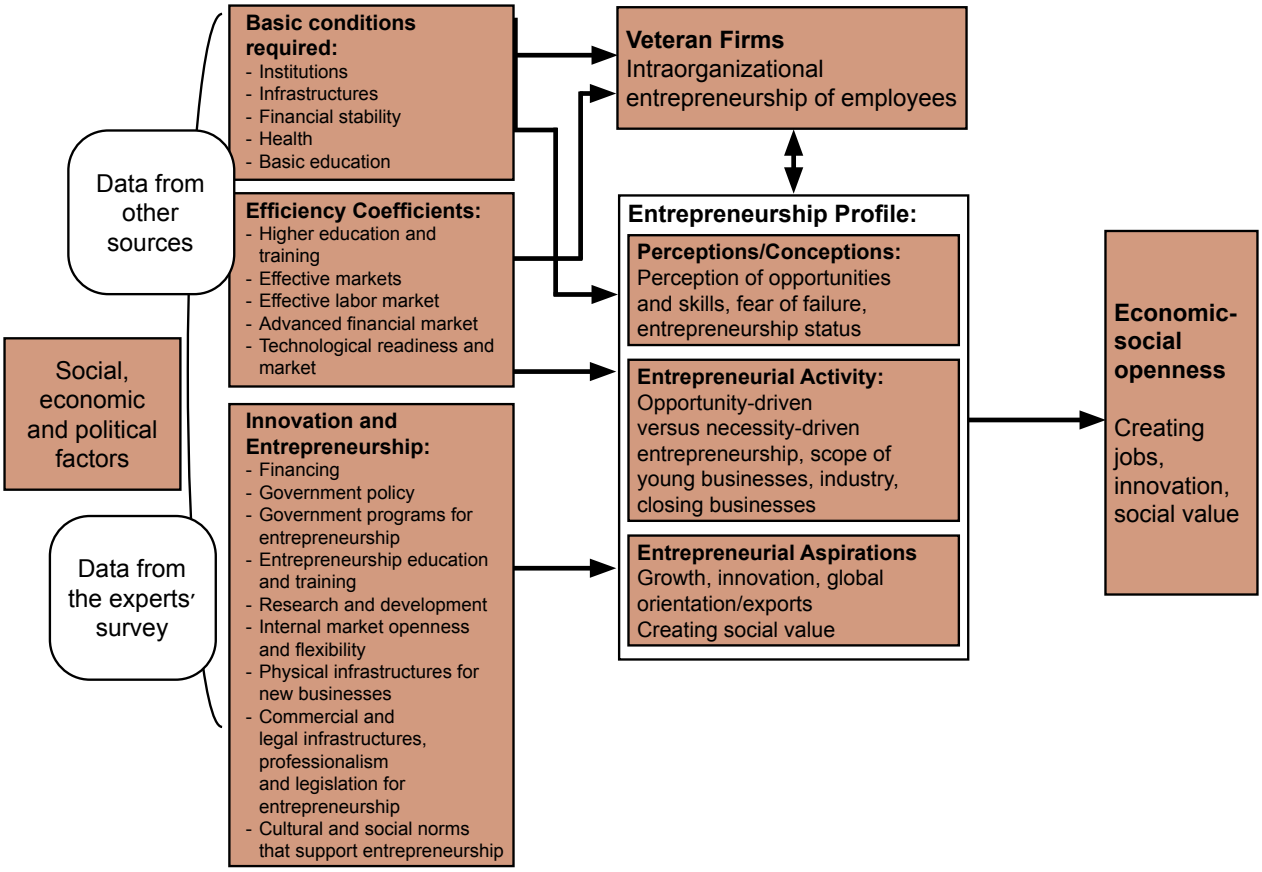
Table 1: Countries that participated in the study and their classification according to GEM 2018/2019

	Low-Level Income	Mid-Level Income	HIgh-Level Income
East and South Asia	India Indonesia	China Thailand	Japan Republic of Korea Taiwan
Europe and North America		Bulgaria Kazakhstan* Russian Federation Turkey	Austria Canada Croatia Cyprus France Germany Greece Ireland Italy Latvia* Luxembourg Netherlands Poland Slovak Republic Slovenia Spain Sweden Switzerland United Kingdom United States
Latin America and the Caribbean		Brazil Colombia Dominican Republic* Guatemala Mexico* Peru	Argentina Chile Panama Puerto Rico Uruguay
Middle East and Africa	Angola Egypt Madagascar Morocco Mozambique*	Iran Lebanon	Israel Qatar Saudi Arabia United Arab Emirates

* Included in the National Entrepreneurship Context Index (NECI) only.

Source: GEM 2018/2019 Global Report.

1.2 GEM Study Model 2018/2019



Source: GEM 2016.

2. Characteristics of Entrepreneurship in Israel by Population Sector

Figure 1: TEA level in Israel, 2015-2018, GEM 2018/2019, by sector

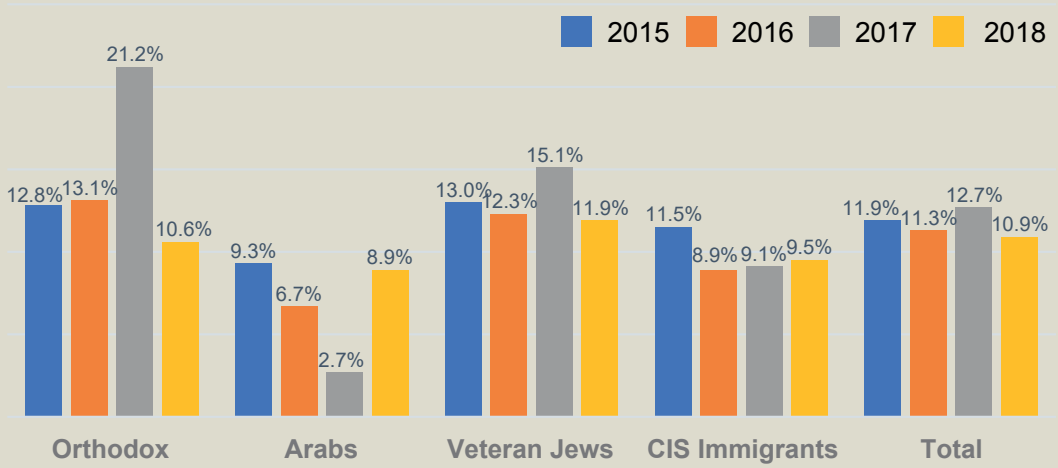
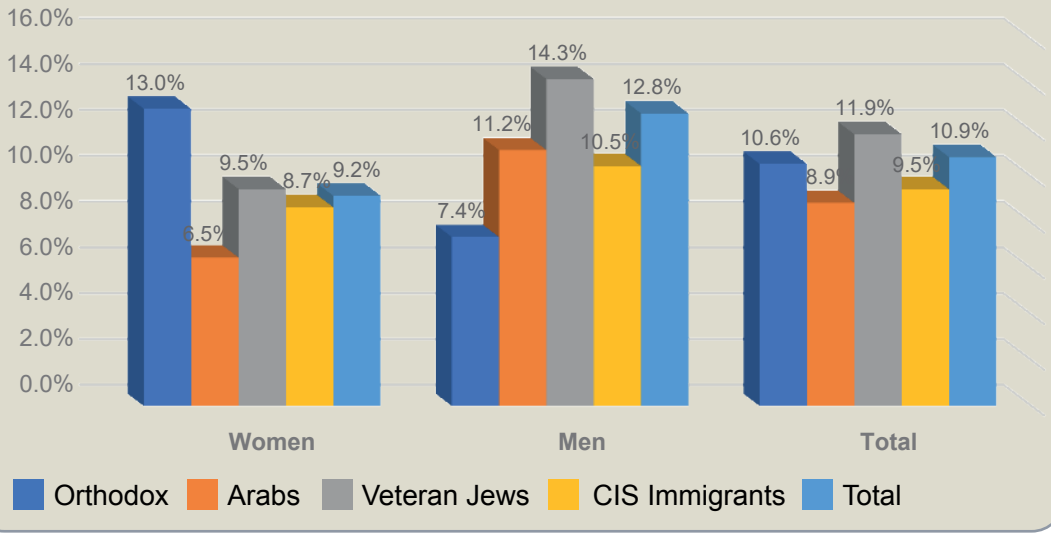


Figure 2: TEA level in Israel, 2018/2019, GEM 2018/2019, by sector and gender

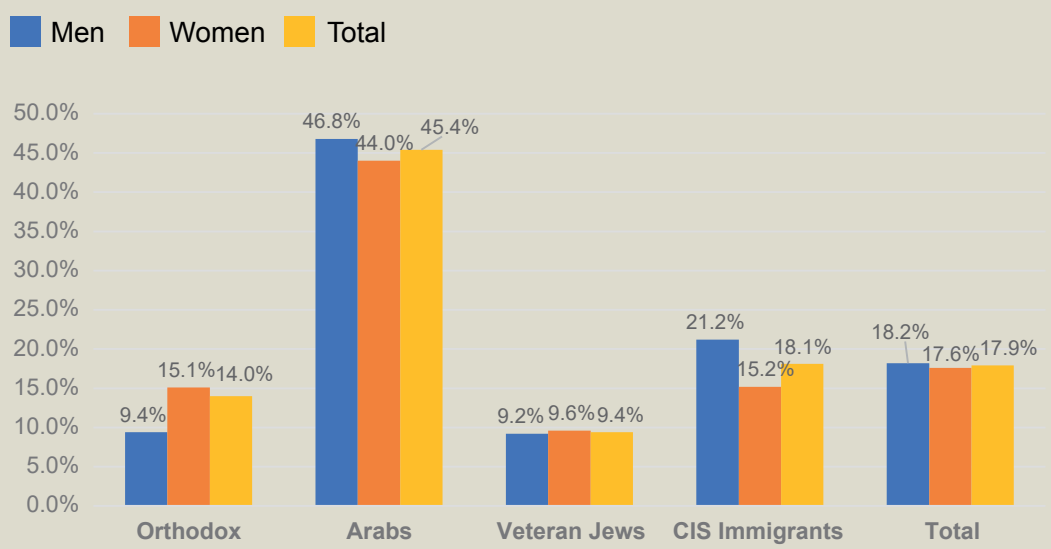


Marked increase in TEA level in the Arab sector in 2018/2019 following the drops observed in 2016-2017, almost to the level observed in 2015!

Figure 2 shows the sharp change in the rate of TEA in the Arab sector in 2018/2019. Women increased to a rate of 6.5% and men to a level of 11.2%. In general, the level in the entire sector reaches 8.9%. This rate takes the Arab sector closer to the level it showed in 2015, and changes the trend of sharp decrease in the sector in the previous two years, when no objective reasons were found that justified such findings.

Significant deviations in entrepreneurship level in the orthodox sector, with women showing a level of 13.0% compared to a sharp decrease among men to 7.4% only. A sharp fluctuation in the level of orthodox entrepreneurship is very unusual, and raises serious questions about the reliability of the questionnaire in this sector. Extreme fluctuations in the questions of the orthodox sector point to problems in the survey, which does not include questions that are adapted to the orthodox sector in terms of their psychology and norms; perhaps the survey 'does not speak the sector's language'.

Figure 3: Ease of starting a business in Israel: Perception of the adult population, GEM 2018/2019, by sector and gender



The analysis of the question "Is it easy to start a business in Israel in 2018/2019?" shows significant differences in the answers among the population's sectors. The Arab sector is particularly unusual in that 45.4% said that it is easy to start a business in Israel in 2018/2019. On the other hand, the Jewish sector shows the opposite, with only 9.4% believing that it is easy to start a business in Israel. 18.1% of the new immigrants sector indicate that it is easy to start a new business, and the orthodox sector 14.0%. In the veteran and orthodox Jewish sectors, the rate indicated by men was lower than that of women, whereas in the new immigrants and Arab sectors, the rate among men was slightly lower in terms of how easy it is to start a business in Israel. The differences between the sectors were found to be statistically significant.

These findings must be studied in depth to assess the factors and the significant differences between the sectors. There is a certain overlap between the fear of failure as a factor that prevents entrepreneurship, the difficulty to start a business, the lack of expectations for growth and work in established businesses, and the renewed increase in the desire for social equality and decrease in TEA rate.

These findings point to a sensation of uncertainty and instability in respect of the opportunities for development and growth of businesses in Israel.

In the analysis of the place of Israel in GEM in the question "Is it easy to start a new business?" only 43 countries participated out of 49 since the question was defined as optional. Israel ranked low, in the 6th place from the bottom, with 17.9% answering 'Yes'.

82.1% of respondents in Israel believe it is difficult to start a business in Israel!

Therefore, Israel ranks 38 out of 43 GEM countries in the perception of ease to start a new business in Israel.

Figure 3.1: Perception of ease of starting a business by the adult population in GEM 2018/2019 countries

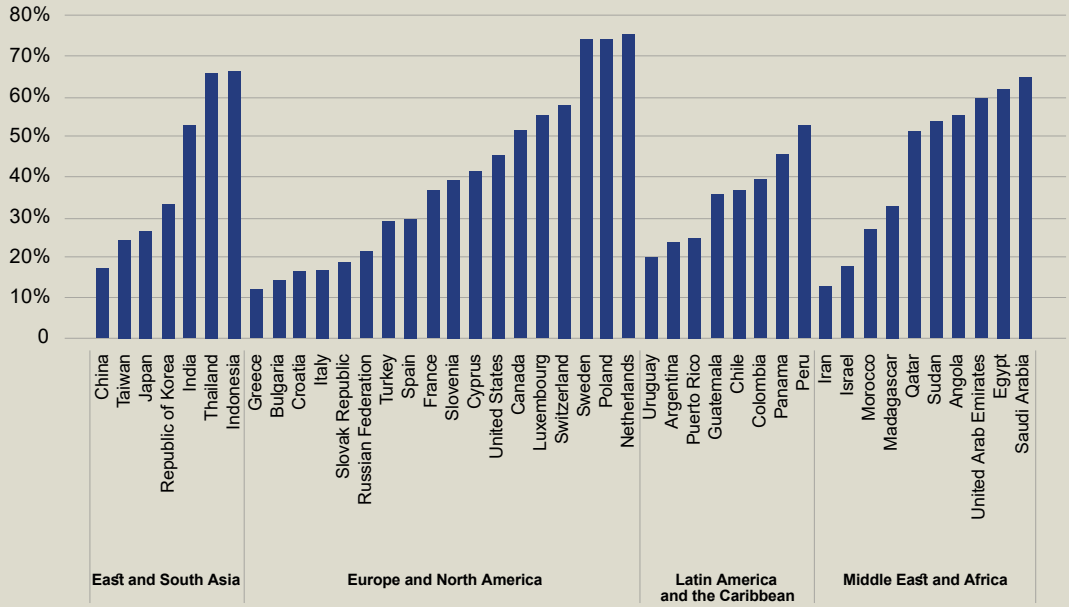
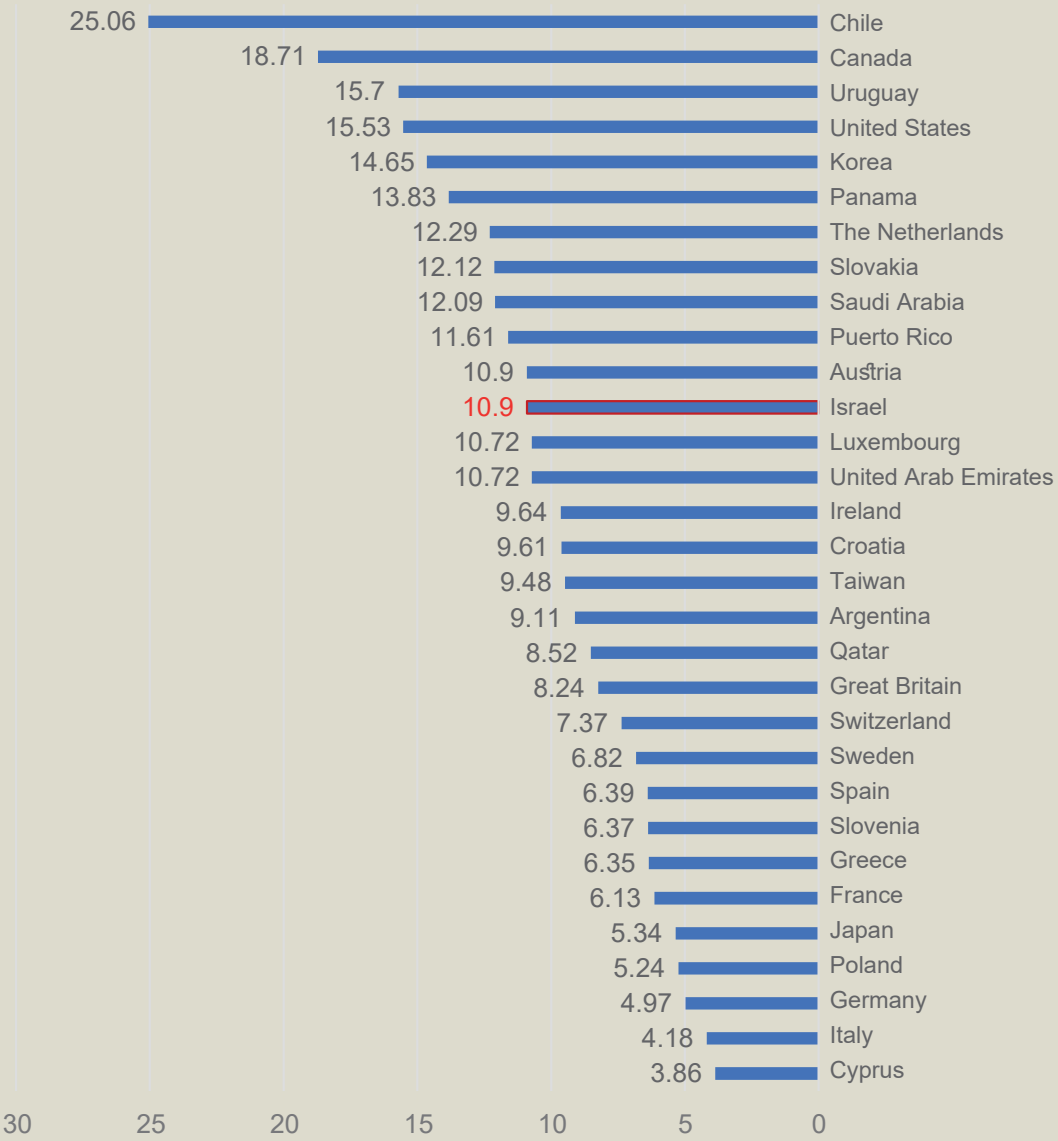


Figure 4 shows Israel's TEA level compared to GEM developed countries. It is noted that the main reference group for Israel is the group of 31 developed countries out of the total 49 that participated in the study in 2018/2019. The developing countries that participated in the study are characterized by a mix of businesses quite different from that of developed countries. The total result is manifested in a higher level of entrepreneurship of businesses with a relatively simpler and lower level of technology compared to developed countries.

In 2018/2019, the number of countries that participated in the GEM study decreased from 54 to 49. In parallel, the classification of countries was updated according to economic development. For this reason, the number of countries defined as developed countries increased from 24 in 2017 to 31 in 2018/2019.

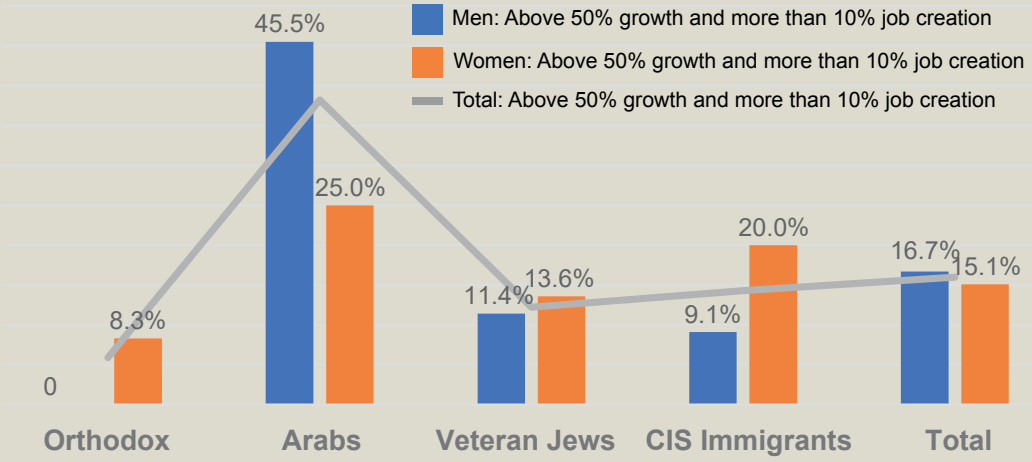
Compared to the 31 developed countries in the 2018/2019 study (out of 49 participating countries), Israel ranks 11 together with Austria. This still leaves Israel in the top third of entrepreneurship level among developed countries after a decrease in 2017 from 12.7% to 10.9%; in other words, from number 7 to number 11 in the 2018/2019 classification.

Figure 4: TEA entrepreneurship level in developed countries (%), GEM 2018/2019, (31 countries out of 49 participating countries)



Source: Israel calculation data and GEM Global Report.

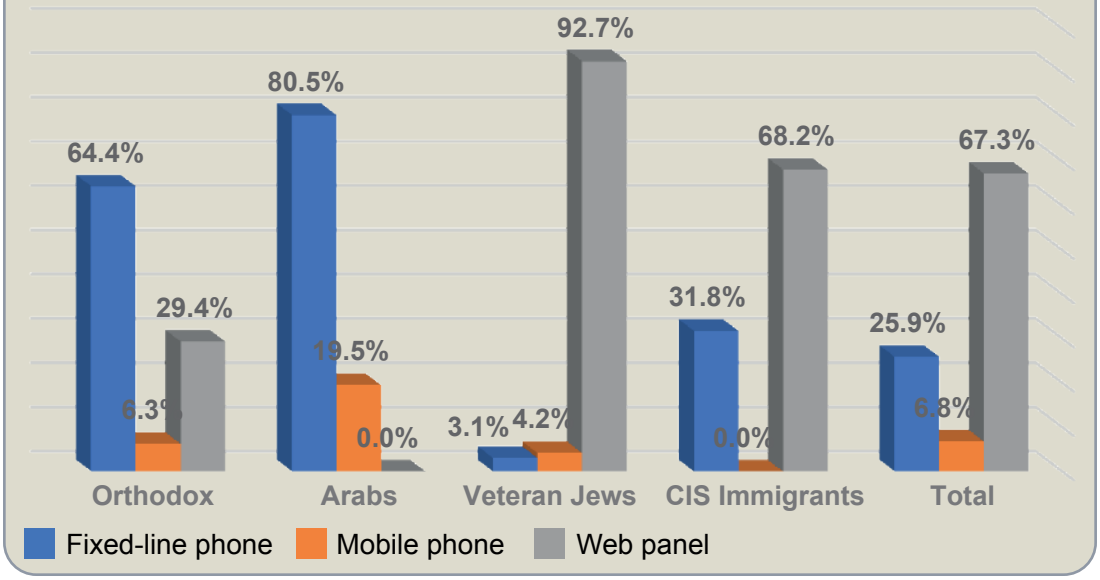
Figure 5: Estimated growth rate and addition of employees in TEA in Israel, GEM 2018/2019



A study of the estimated growth rates of EBs showed data that requires special attention. All sectors, except the veteran Jewish sector, showed an estimated growth and employment rate (more than 50% growth and more than 10% of additional employees) of zero!

Only the veteran Jewish sector showed 4.8% growth and employment rate. This finding must be studied in more depth, as it may imply a real drop in expectations for growth that will self-fulfill next year.

Figure 6: Survey data among the adult population in Israel, ages 18-64, 2018/2019, by sector and query method



Considerations such as survey means in the various sectors, availability of communication means among them, and lack of authorization to access updated data from national sources (Israel Central Bureau of Statistics) dictated a method that enabled to reach a large sample, with three survey methods adapted

to the accessibility of each sector. An Internet panel was not used in the Arab sector since it was not sufficiently represented. The veteran Jewish sector made optimum use of the Internet panel thanks to its availability, which was slightly less used by the new immigrants sector. The orthodox sector showed a more varied use of fixed-line phones, Internet panel and mobile phones. The Internet panel has an advantage since it is large and varied enough to represent the population sectors without inherent deviations. It also gives an advantage to relatively smaller populations, or to those that are not represented in the panel, according to their relative share in the population. In our study in 2018/2019, as well as in 2016-2017, there were deviations in the results in the orthodox sector, which were caused primarily by the size of the sample and its representation in the various survey methods. An issue with the 2018/2019 study required to resurvey 360 out of the 2,000 respondents in the sample. This delayed the data processing and their implementation in both the global GEM study and in our study.

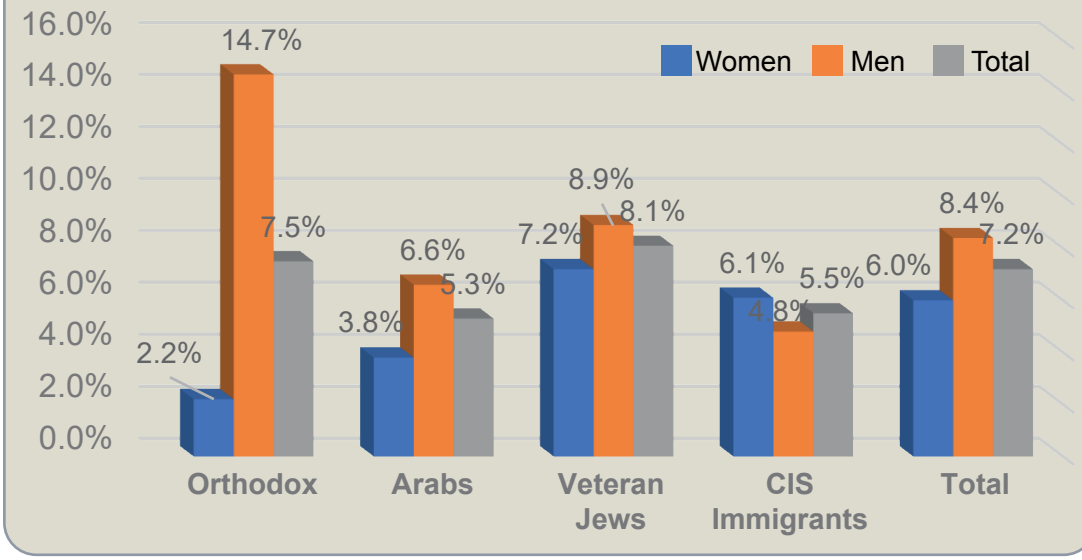
The 2017 Israeli report already showed that lack of access to the Israel Central Bureau of Statistics' data about the population registrar prevents research institutions and survey institutes to use Israel's population data for their surveys. As a result, the reliability and credibility of Israel's data is harmed in all population surveys in Israel.

The EEA rate in Israel out of the total population in 2018/2019 increased to a level of 7.2%, compared to 6.1% in 2017 and 5.2% in 2016.

EEA operates in the framework of an existing organization, and remains 'under the economic radar' of the organization. As a result, it does not capture new economic activity and the scope of jobs it creates, provided there is no definition of a new, independent organizational entity.

The 2018/2019 study shows, once again, significant deviations in data of men and women in the orthodox sector. On the one hand, there was an unusually higher rate of EEA among men; on the other, a lower rate among women in the sector. It appears that the deviations in the data of the orthodox sector stem from a unique interpretation by the sector of questions relating to the meaning of EEA, and from the very low number of respondents, which tends to reinforce the sector's findings.

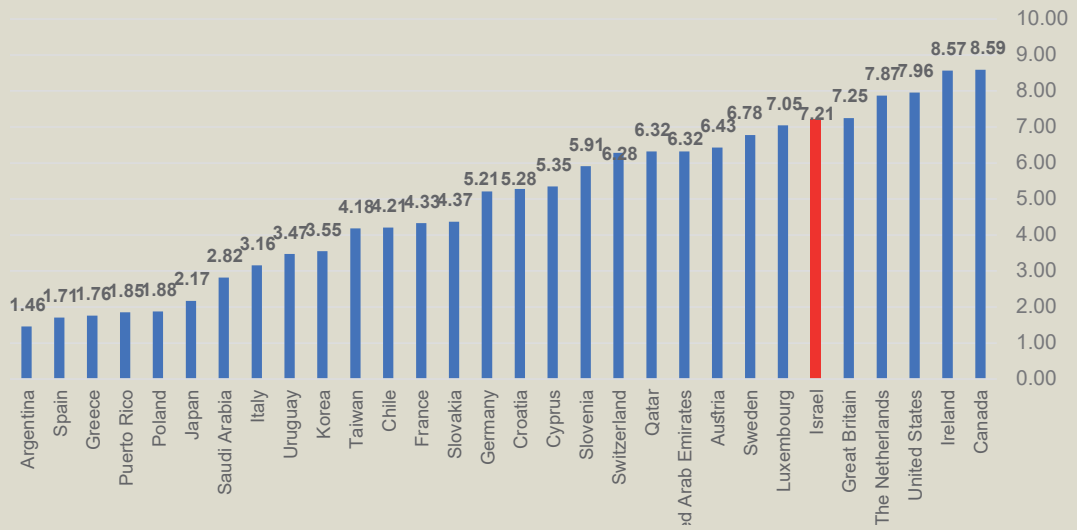
Figure 7: EEA level in Israel, GEM 2018/2019, by sector and gender



From the GEM study and from the collaboration with the WEF, it emerges that in some developed countries, which show a medium or low TEA rate, **extensive EEA rates contribute to the economy of** these **nations and to their rate of employment**. **This is a very important contribution, which sometimes exceeds the scope and accomplishments of independent entrepreneurship in those countries.** This index reflects the innovation capabilities of large organizations and established companies, and constitutes a strategic challenge aimed at ensuring the sustainability of these enterprises.

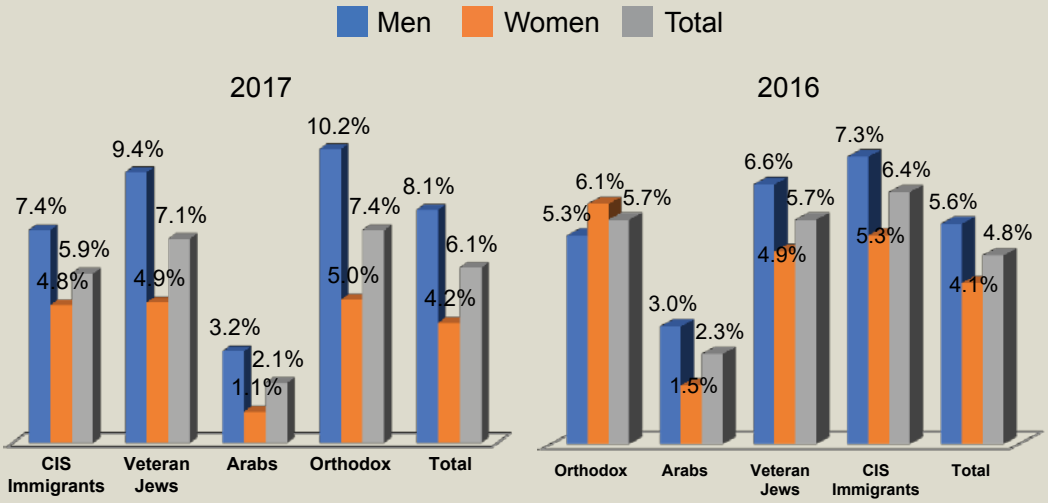
In Israel, there is still no policy for prioritizing EEA and monitoring the results of its activities in the framework of national statistics provided by the Central Bureau of Statistics. Support of EEA initiatives and innovations in existing businesses and organizations can provide an incentive and a response to the essential need to raise the level of productivity among businesses in Israel.

Figure 8: EEA level in developed GEM countries, 2018/2019 (%)



Source: GEM 2018/2019 Global Report.

Figure 9.1 and 9.2: Active EEA in Israel, ages 18-64, out of the total population, GEM 2017 and GEM 2016, Israel's calculation



Source: Analysis of Israel Findings in the Calculation of the Adult Population in Israel, Ages 18-64.

For global data, we used GEM's data, whereas in the analysis of the data of population sectors in Israel we used a calculation of the entire adult population in Israel.

The comparison of EEA data among the sectors in Israel in 2017 shows that there is a significant gap in participation in entrepreneurial activity, with men constituting two thirds of EEAs and women one third.

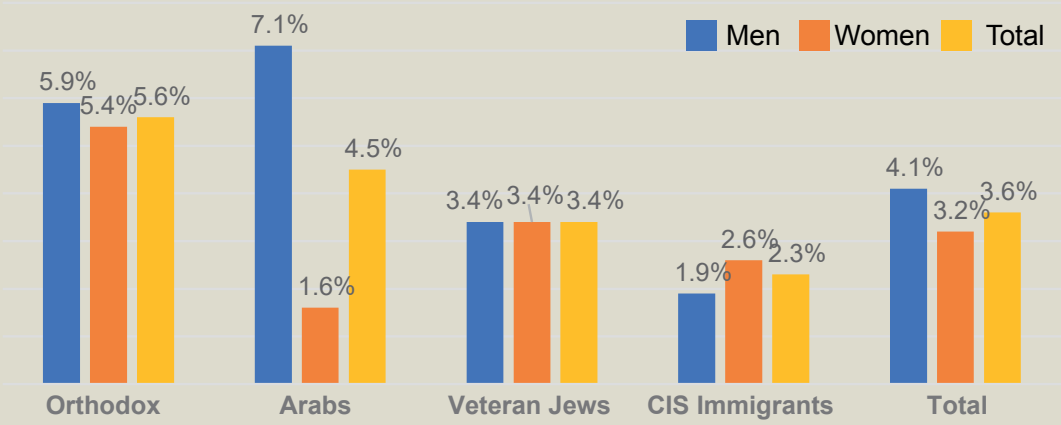
The representation of the Arab sector in EEA is significantly lower compared to the other sectors, probably due to the nature of businesses that want and are prepared to promote such activity in their business.

The orthodox sector too shows deviations in its high results, which seem unreasonable in the Israeli reality. The percentage of EEA among men doubled compared to women in 2017, which is very different from 2016 data (see Figure 7), in which the level of orthodox women was higher than men, and the highest among women in all sectors. This deviations must be verified in a larger sample with a different distribution of questionnaires, to clarify the facts and validate them already in the first stage of the survey.

Entrepreneurial activity rates among EBs in 2018/2019 increased from 3.3% to 4.2% (after the sample's correction) according to the GEM 2018/2019 calculation.

According to the Israeli calculation in 2018/2019, men's EB is 4.1% and women's 3.2%, with a total of 3.6% in the population.

Figure 10: Established Businesses (EB) entrepreneurship level in Israel, GEM 2018/2019, by sector and gender



Source: Israel calculation 2018/2019.

The IDO index was developed by GEM to assess the key motivations among entrepreneurs when choosing to start a new business. The study's assumption was that the motivations for opportunity-driven entrepreneurship are aspirations to independence and nonreliance, and to increase income ('making more money', getting richer). Alongside these two main motivations there is also a fusion of both with necessity-driven entrepreneurship. These distinctions are based on personal reports of the entrepreneurs.

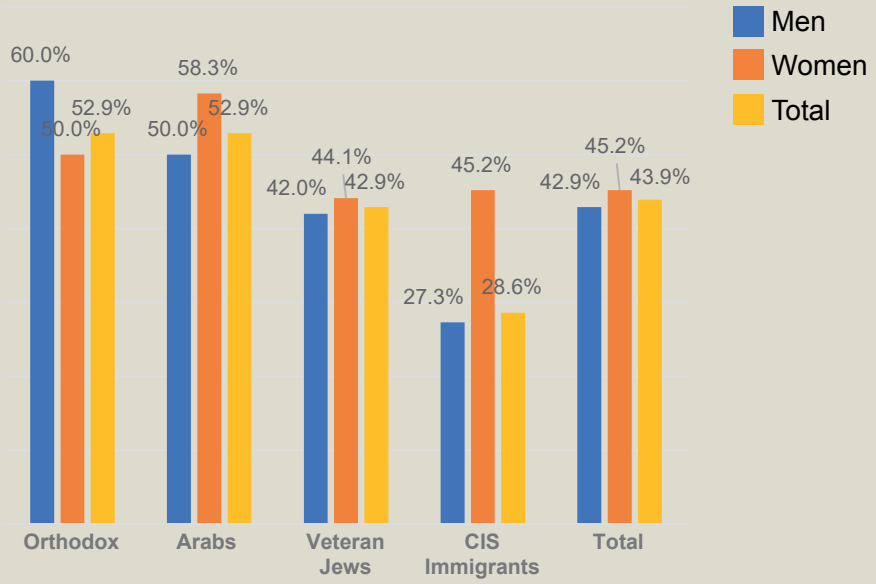
Table 2: IDO index in Israel, 2015-2018
(Upward score = Improvement in opportunity-driven motivation; downward score = drop in opportunity-driven motivation)

Years	2015	2016	2017	2018
Index Score	40.9	39.2	33.3	43.9
No. of Countries	60	65	54	49
Israel's Ranking	41	53	48	30

The increase in IDO in 2018/2019 compared to 2017 reflects the fluctuations between dominant motivation to reach independence and economic self-reliance, and the intention to get rich as a result, and the selection of the explanation that combines a more complex motivation that includes economic-existential necessity. This explanation diminishes the role of motivation in taking advantage of the opportunity to become independent and get rich (whose components are independence, self-reliance and becoming richer), compared to necessity-driven entrepreneurship.

In 2018, there is a marked increase in the level of motivation of independence and choice, and a decrease in the explanations of complex motivations, which include also elements of existential livelihood. Salient increases were observed among women in the Arab sector, in the new immigrants sector and in the veteran Jewish sector. In general, women in all sectors refer to a positive element of motivation to start a new business and independent economic activity, surpassing men by 2.3% in average. The orthodox sector is prevalent in its high rate of men compared to the other sectors. This increase is apparently related to the small number in the sector and the characteristics of social compliance and norms relating to surveys.

Figure 11: Improvement-Driven Opportunity (IDO) motivation, Israel, GEM 2018/2019, by sector and gender



In 2018/2019, the intentions in the nonentrepreneurial adult population in Israel to start a new business within the next three years increased to 31.9%. This is the highest level found in the GEM study in Israel among the nonentrepreneurial population to start a new business within the next three years.

The Arab sector is prevalent in declared entrepreneurial intentions, both among men and women. This finding shows that there is strong motivation in the Arab sector to achieve more economic independence under conditions of political, religious and mental limitations, which prevent the sector from accessing most of the employment opportunities available to the population of Israel. This statement is significant for the future development of the economy and employment of the Arab sector, whose potential is not realized, in respect of closing employment and entrepreneurship gaps compared to the population of Israel. The veteran Jewish sector ranks second after the Arab sector in this index. It is interesting that the level of motivation to start a business within three years among women in both sectors (whose TEA level is lower than that of men), is relatively higher than men's. This is an important finding that relates to the training and investment required to plan and accelerate entrepreneurship among women in all sectors. **There is willingness and motivation to engage in entrepreneurship among women, which is extremely important in terms of governmental actions and initiatives.** The rate of women in the orthodox and new immigrants sector is also higher than men's in the same sector, in terms of motivation and intention to start a business in the next three years. **This finding reinforces even more the need to provide suitable, new and creative solutions to promote women entrepreneurship in Israel.**

Figure 12: TEA level and intention by the Israeli adult population to start a new business within three years, GEM 2018/2019

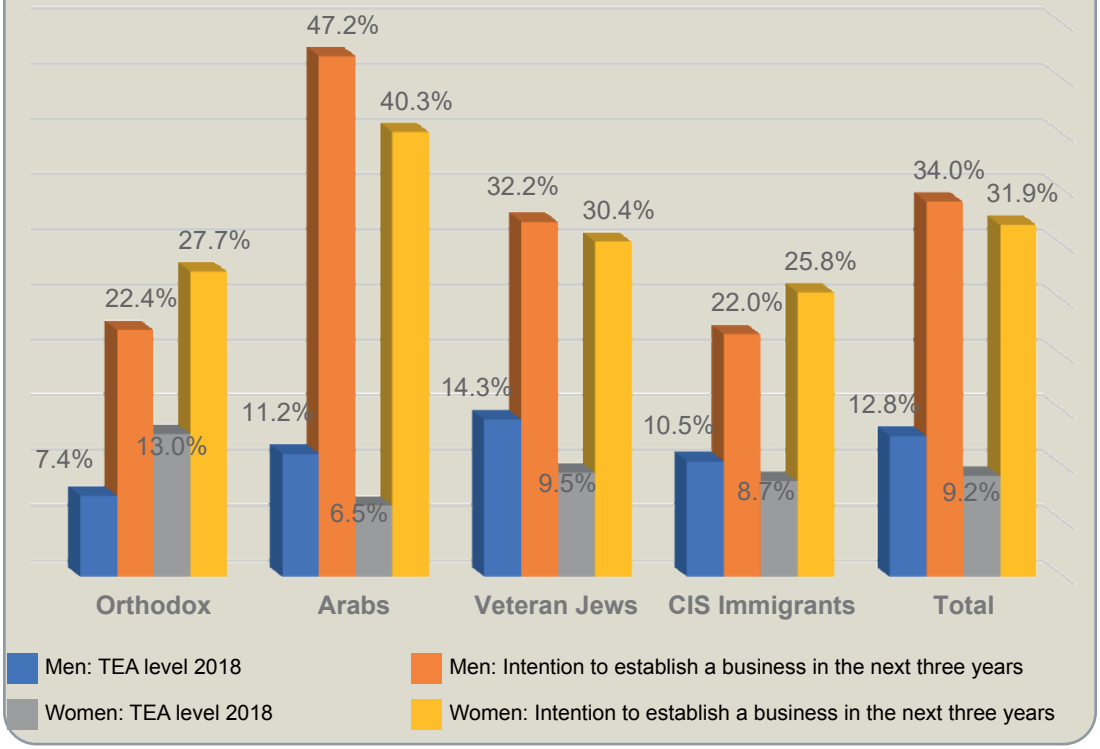


Figure 13: Entrepreneurial intentions in the adult population in Israel to start a new business within three years, compared to starting a young TEA, 2007-2018, GEM 2018/2019

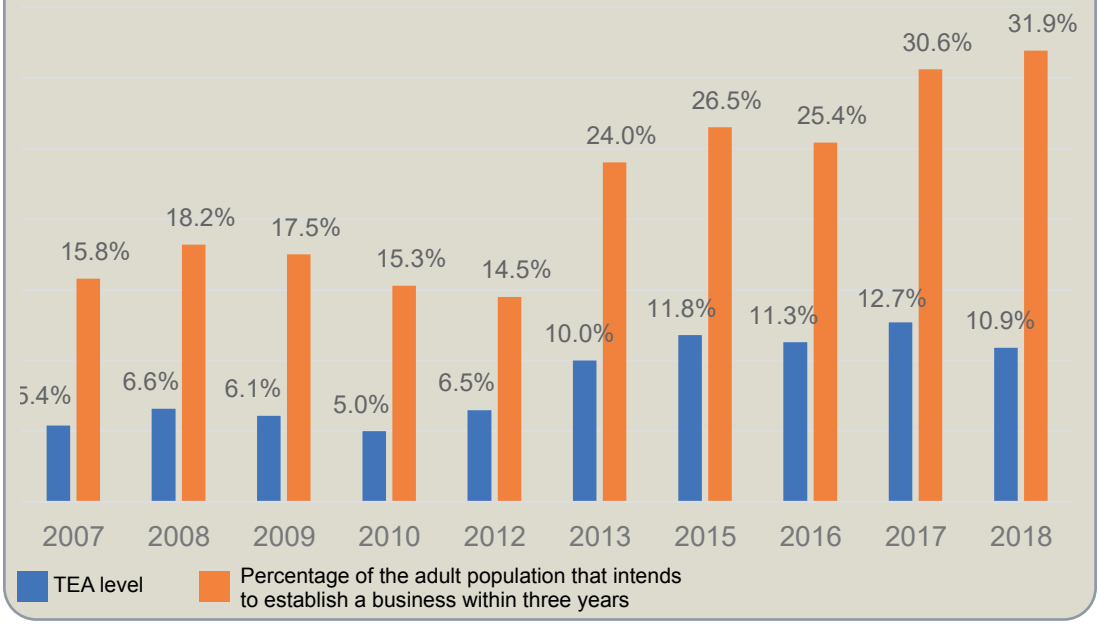
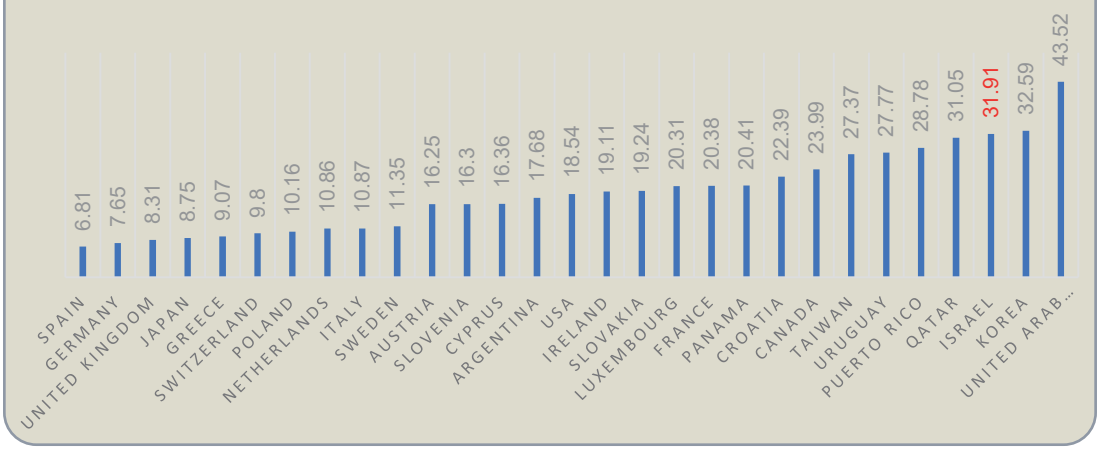


Figure 13 shows a trend of gradual increase in TEA rate in Israel in the last decade, and a decrease last year (2018/2019). The global economic crisis in 2007-2012 affected Israel in terms of exports, and in the conditions young businesses had to cope with. In 2011, Israel did not participate in the GEM study.

As of 2012, there was an increase in this rate until 2018/2019, when TEA decreased by 1.8%.

Despite this drop, the intentions to start a business within the next three years increased by 21.0% – the highest rate of increase in entrepreneurial intentions among all 11 years surveyed. The need and entrepreneurial desire in Israel and the norms that support them, apparently enable Israeli entrepreneurs to withstand increasing difficulties in the economic system compared to new businesses.

Figure 14: Nonentrepreneurial population in developed countries that declares its intention to start a new business within three years, GEM 2018/2019 (%)



The data of Israel's population in 2018/2019 points to two opposing trends that act in parallel: The first is an increasing desire and intention to start a new business within three years, which places Israel third among GEM developed countries; and the second is a substantial increase in fear of failure to start a new business/enterprise under these conditions. There is no doubt that this poses difficult dilemmas for potential entrepreneurs, and requires them to consider the risks inherent to the entrepreneurial and economic ecosystem, taking into account its level of health and stability so that it can support new businesses and allow them to survive.

Fear of failure in the adult population of Israel, ages 18-64, in 2018/2019 increased to 60.2% among men and to 60.1% among women. This is a significant increase compared to 2017, with an average of 53.6%.

Figure 15: Fear of failure as a deterrent to start a new business in the nonentrepreneurial population of Israel, GEM 2018/2019

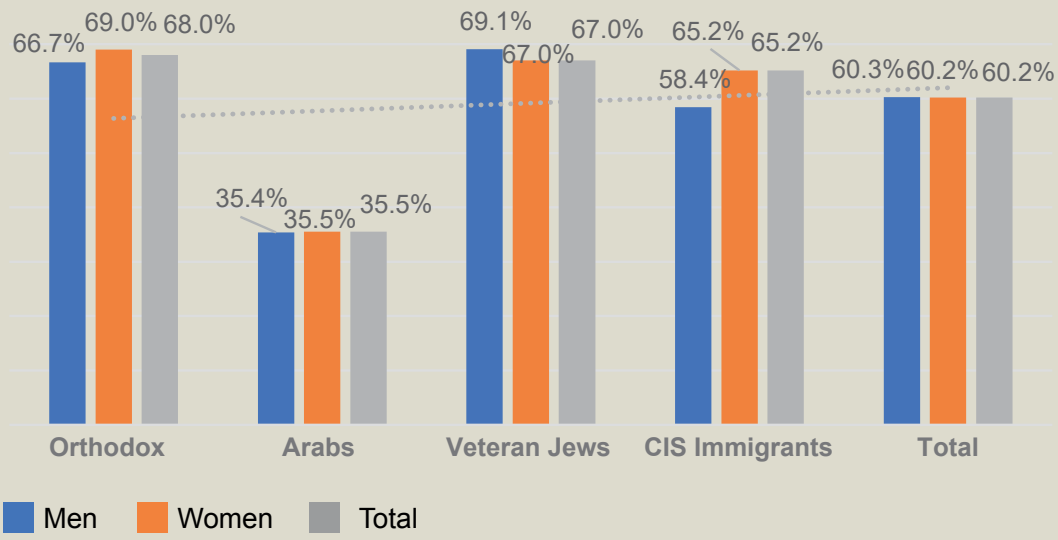
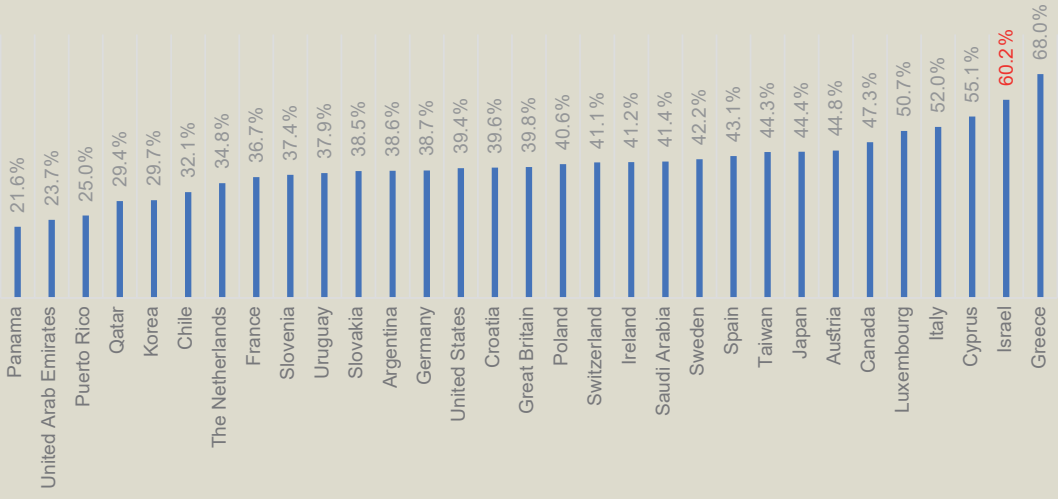


Figure 16: Fear of failure that prevents entrepreneurship in developed countries, GEM 2018/2019



Among developed GEM countries in 2018/2019, Israel ranks second in the rate of fear of failure as a factor that prevents entrepreneurship now and in the future. This data was used in the Israeli calculation since in the year that the survey in Israel was disrupted, the required correction was not introduced in the global GEM file. In 2018/2019, there was an increase in the Israeli calculation from 53.6% in 2017 to 60.2% in 2018/2019!

This is a concerning increase in the lack of confidence among the population about its ability to start a business and sustain it in the current conditions in the country. Israel is second only to Greece, which has suffered numerous economic and social crises. This finding must be urgently addressed by the government, which must modify a perception that may lead to a crisis among many new businesses or prevent their establishments.

Lack of economic and security certainty; lack of competition; corruption; giving priority to large, connected companies; difficult opening conditions for new small businesses; and discriminatory taxation – all these and other factors are causes of deterrence and apprehension among starting entrepreneurs.

Israel ranks third among GEM developed countries in 2018/2019 in the level of discontinued businesses that ceased to exist, with a discontinuance rate of 5.0%, and 1.9% of businesses that continued under a different ownership, including different products. This is the highest level of discontinuance observed in Israel so far in the GEM study.

The discontinuance rate in Israel ranged from 3.15% to 4.8% in 2010-2017 which, according to the GEM study, is a relatively high level. The data points to the difficulty of businesses to safely survive over time. We do not have sufficient data about the seniority of businesses discontinued over the year of the study. We do have data collected methodically about the reasons that led to discontinuance among entrepreneurs that closed businesses over the year of the study. In all four sectors studied, women discontinued more businesses than men, with the veteran Jewish sector leading in the number of businesses closed in comparison to other sectors. The new immigrants' sector ranked second, and the Arab sector closes the list with 3.4% discontinuance rate and 1.85% businesses that continued under a different ownership. The fact that the rate of discontinuance among women is higher than among men points to the need to pay attention to the training of women towards entrepreneurship and business management, already in elementary school, and to support them during and after the business is Figure 17: Business discontinuance, calculation in Israel, 2018/2019, by sector, or change of activity.

Figure 17: Business discontinuance, calculation in Israel, 2018/2019, by sector, or change of activity

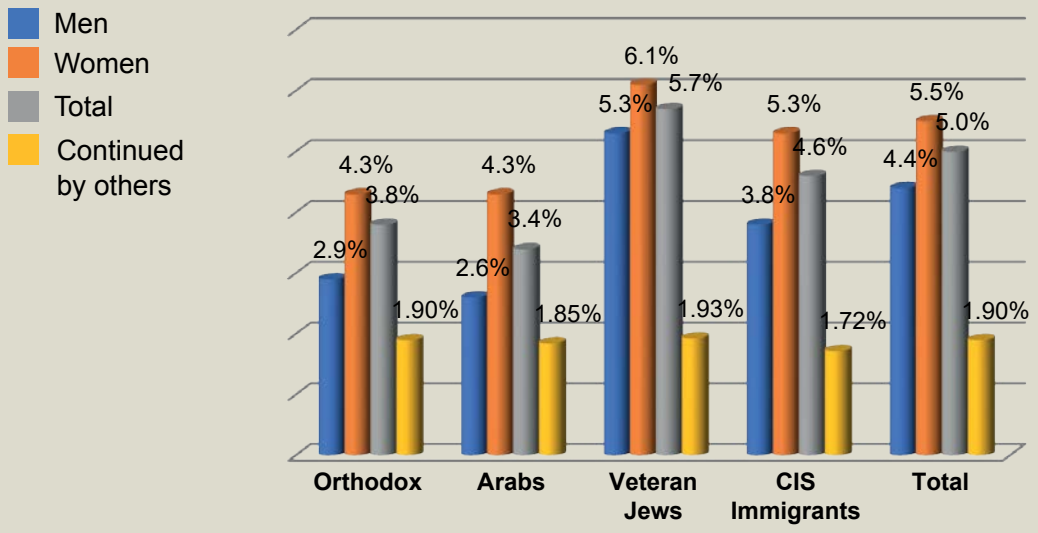
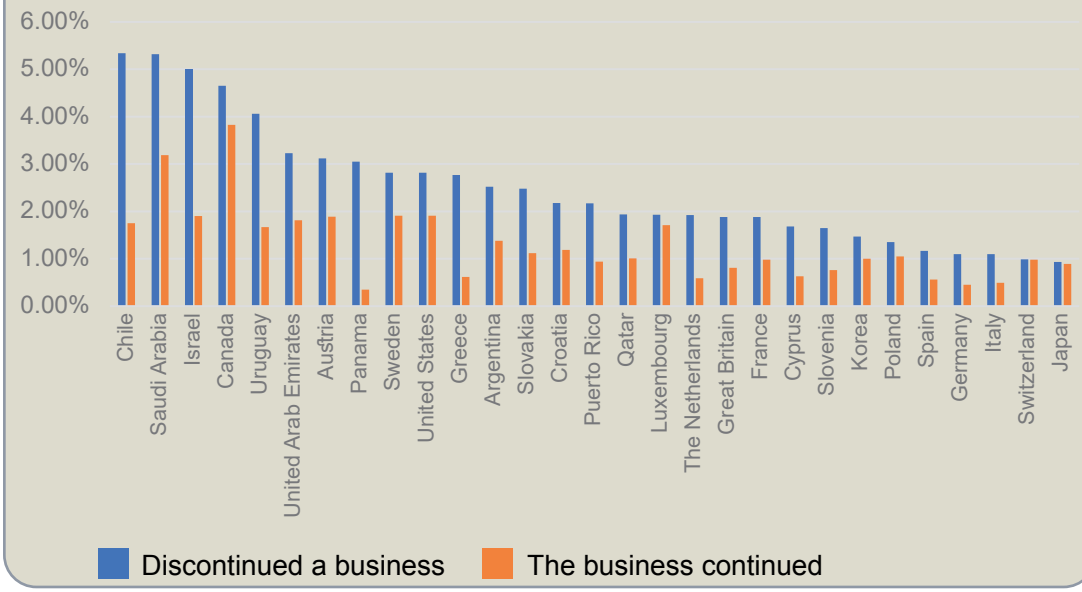


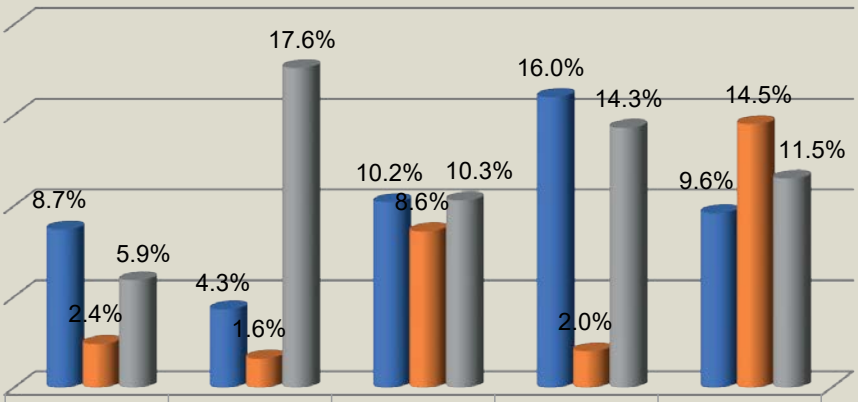
Figure 18: Business discontinuance in developed GEM 2018/2019 countries in the year prior to the study, and continued operation by others (%)



Israel ranks third after Chile and Saudi Arabia in the level of business discontinuance in 2018/2019. It ranks fifth in the rate of businesses that continued to exist or changed significantly with other owners. As indicated, this is a high rate of discontinuance that points to businesses and entrepreneurs having difficulties to survive.

Figure 19 shows the rate of technological entrepreneurs by sector, which includes both high and midtech entrepreneurs. **These entrepreneurs together represent the rate of technological entrepreneurs in Israel as a percentage in the total TEA population.** This means that 14.5% of technological entrepreneurs are part of all TEA in 2017 (N=255). The numbers here are small (N=37). The rate of technological entrepreneurs in 2017 increased from 9.6% to 14.5%. In actual fact, the N number of entrepreneurs in each sector shows that out of 261 TEA entrepreneurs in 2016, 'only' 25 were technological, which represent 9.6%. Out of 255 TEA entrepreneurs in 2017, 37 were technological (14.5%). In 2018/2019, 25 out of 218 entrepreneurs were technological (11.5%). Among technological entrepreneurs in 2018/2019, there was no representation of men from the orthodox sector and women of the new immigrants sector.

Figure 19: Technological entrepreneurs among TEA in Israel in 2016-2018, GEM 2018/2019, by percentage and sector



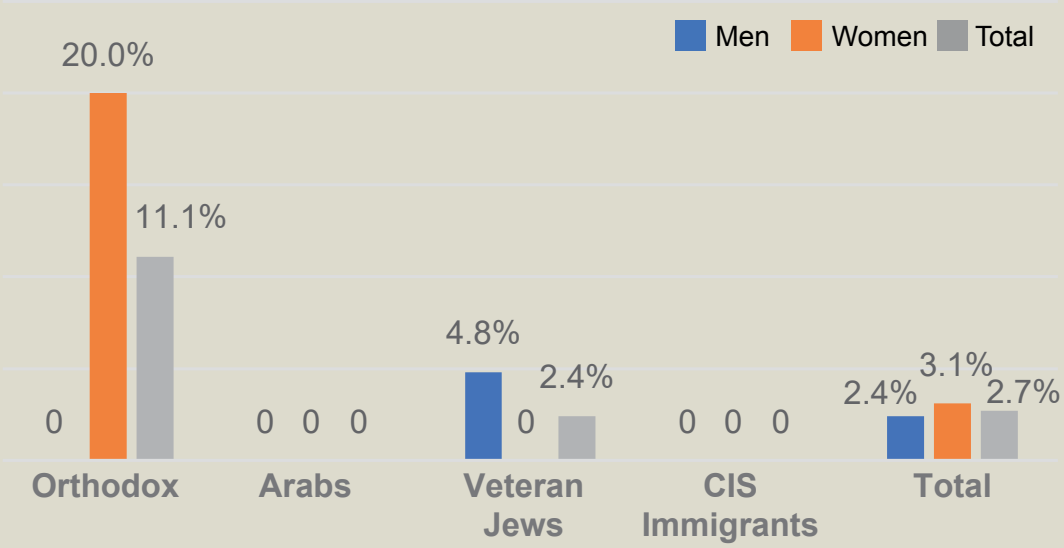
Orthodox	Arabs	Veteran Jews	CIS Immigrants	Total	
8.7%	4.3%	10.2%	16.0%	9.6%	Tech entrepreneurs 2016
2.4%	1.6%	8.6%	2.0%	14.5%	Tech entrepreneurs 2017
5.9%	17.6%	10.3%	14.3%	11.5%	Tech entrepreneurs 2018

Figure 20 shows the findings of our 2018/2019 sample of technological entrepreneurship level among EBs in Israel. This finding points to a weakness in our sample of 2,000 people in the population to reach proper representation of technological entrepreneurship in the sectors, with the number and distribution of technological entrepreneurs in the various sectors being minimal and not normally distributed. There is a real difficulty to properly represent such low number, and thus the margin for error is very large. In the following figure, the data is based on two technological entrepreneurs, a woman from the orthodox sector and a man from the Jewish sector. In the Arab and new immigrants sectors, technological entrepreneurs are not represented at all. **This means that only 2 out of 73 EBs defined themselves as technological entrepreneurs.**

Innovative, breakthrough technological entrepreneurship does not come forth in a random sample of a population, which pretends to present the bigger picture in Israel and the distribution of the phenomenon. Technological entrepreneurs in Israel, especially those who succeeded in starting a business that works and develops, emerge from different types

of greenhouses in which there is constant R&D, and they benefit from networking, financing and marketing that open doors and pockets. The largest greenhouse and provider of highly skilled human capital is the army's R&D. Military R&D systems and academic research offer youngsters in Israel opportunities to innovate, fail, make mistakes and discover innovative solutions. This activity takes place in a supporting, financed environment, that sometimes produces innovative and creative solutions and important developments at the national and global levels.

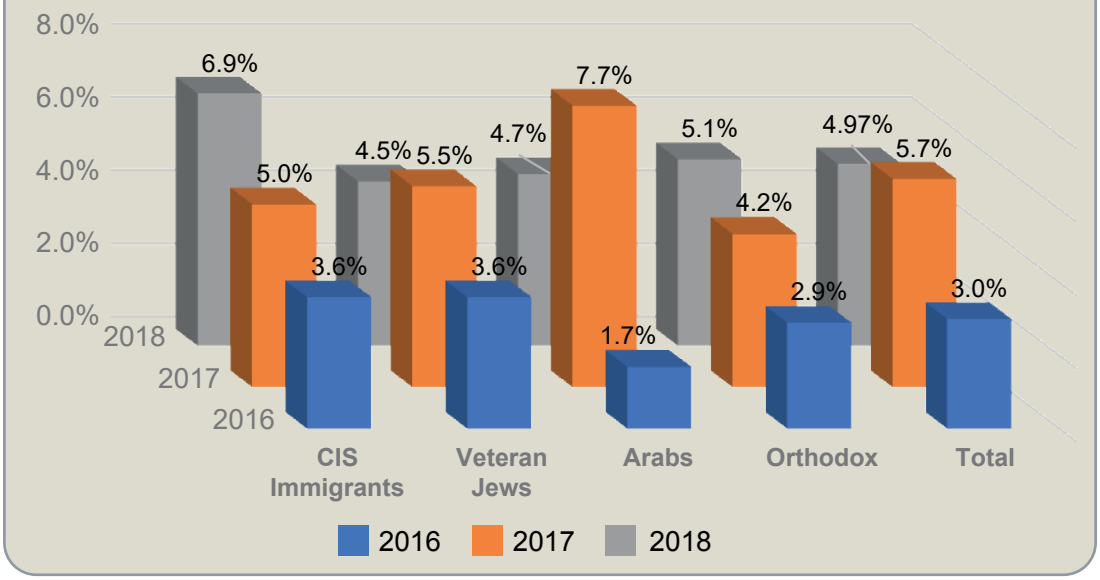
Figure 20: EB technological entrepreneurs, GEM 2018/2019, by sector and gender



Activity of informal investors in Israel in 2018/2019

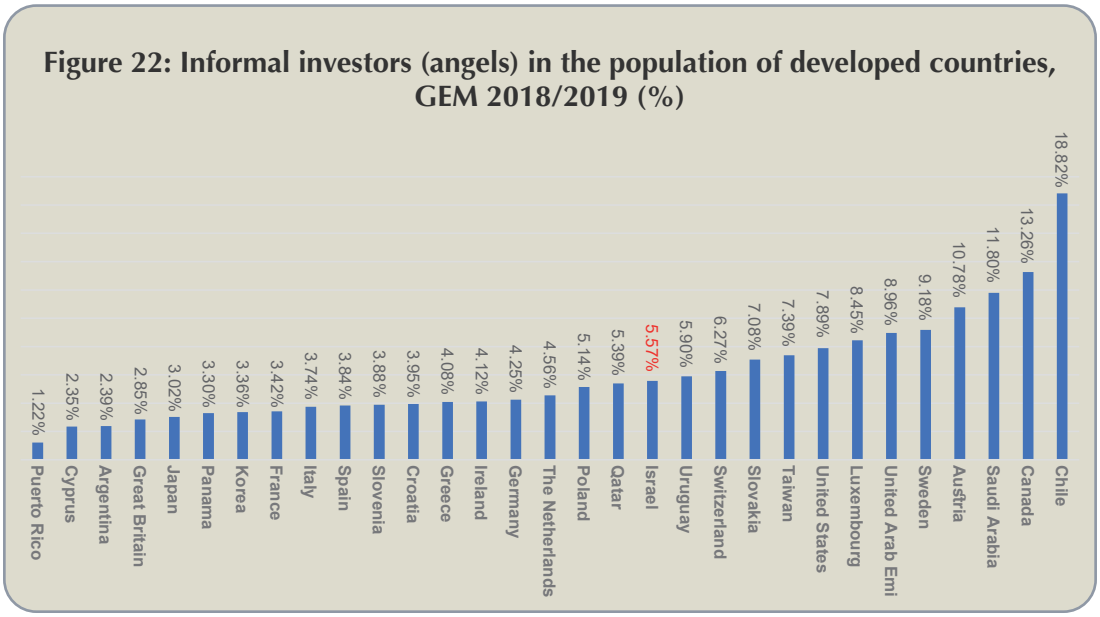
In the 2018/2019 sample, 88 informal investors participated. Only 71 of them agreed to provide information about their investment. The average investment per investor was $33,434. There is a difference between Israel's data in Figure 21 and in Figure 22. This difference stems from a different calculation of the data. The data for Israel only is provided according to the Israeli calculation, not the GEM calculation.

Figure 21: Informal investors (angels) in Israel 2016-2018, GEM 2018/2019, by sector



Source: Israel calculation.

Figure 22: Informal investors (angels) in the population of developed countries, GEM 2018/2019 (%)



Source: GEM 2018/2019 calculation.

The perception of inequality in the adult population of Israel in 2018/2019, ages 18-64, increased slightly to 43.9%.

The perception of inequality index in the nonentrepreneurial adult population, ages 18-64, manifests this population's desire for more equality in the lifestyle and subsistence of Israel's residents. This index was evaluated in all rounds of the study.

A comparison with the data of developed GEM countries, whose level of equality is higher, shows that they attain better economic achievements and civil welfare. During the study, it emerged that in the 'desire for more equality' indicator, Israel is at the bottom of the list of participating countries – ranking 29 among developed GEM countries, with only Poland and Japan after Israel. Except for the period prior to the social demonstrations in 2011, when the desire for more equality increased, Israel is at the lowest level among developed countries in the desire for higher social-economic equality. The analysis of Joseph Zeira in his book "The Israeli Economy" points to several processes the government implemented and implements to increase inequality in Israel, and the change in public perception in terms of the importance of advancing Israel's society and economy.

Figure 23: Perception of equality in the adult Israeli population, GEM 2018/2019, by sector and gender

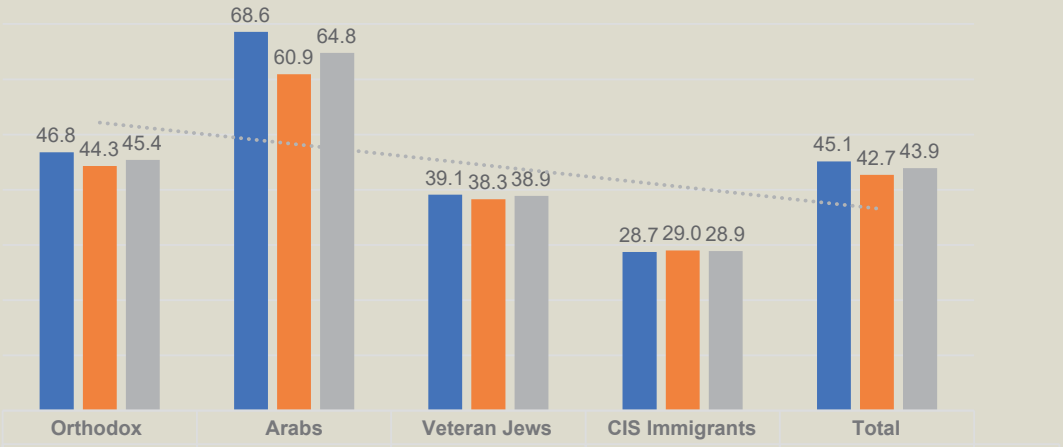
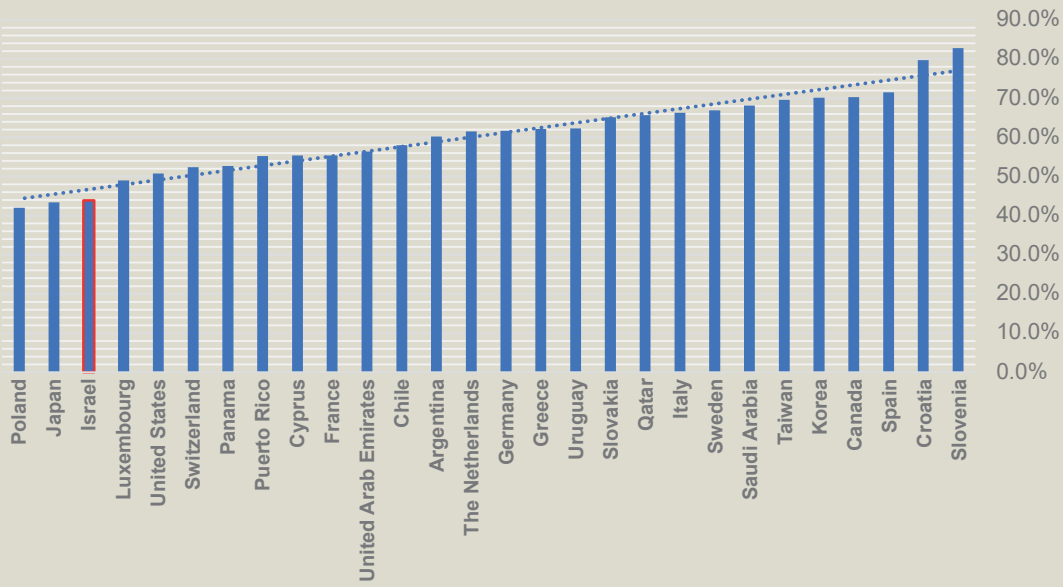


Figure 24: Desired equality in developed countries, GEM 2018/2019 (%)



Knowledge of entrepreneurs who started a business in the last two years in Israel compared to developed countries, GEM 2018/2019

Israel is one of the developed countries in the GEM study whose adult population has in-depth knowledge of entrepreneurs who established and developed businesses in the last two years. Israel ranks third among developed countries in 2018/2019 in knowledge of active entrepreneurs. There is no doubt that exposure by 56% of the population considerably raises awareness about the importance and advantages (as well as disadvantages) of starting new businesses that change the lives of entrepreneurs, who are considered to have a prestigious status and being involved in a challenging profession.

Figure 25: Knowledge of entrepreneurs who started a business in the last two years in developed countries, GEM 2018/2019 (%)

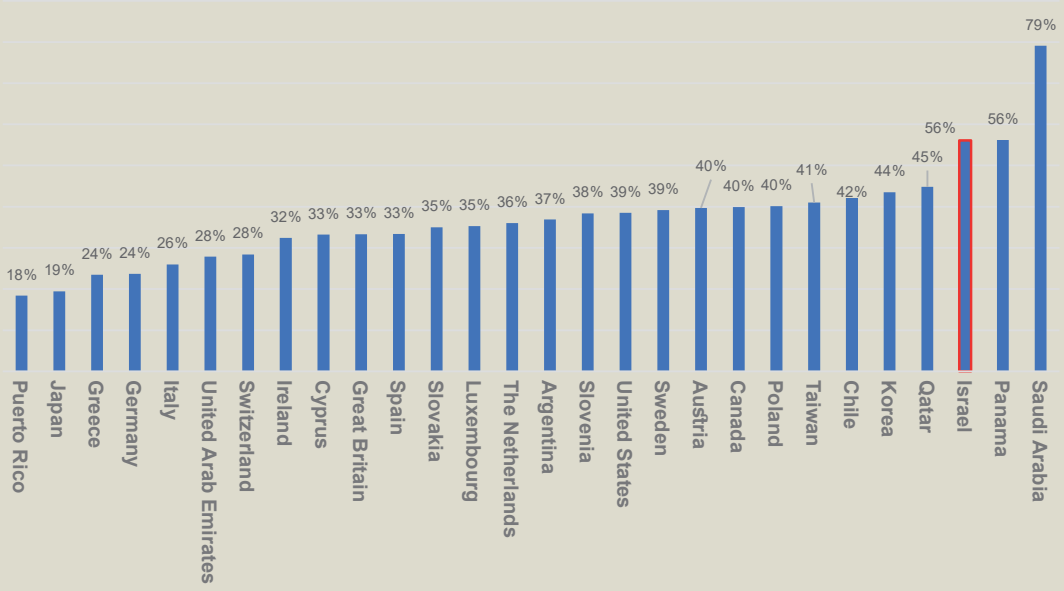
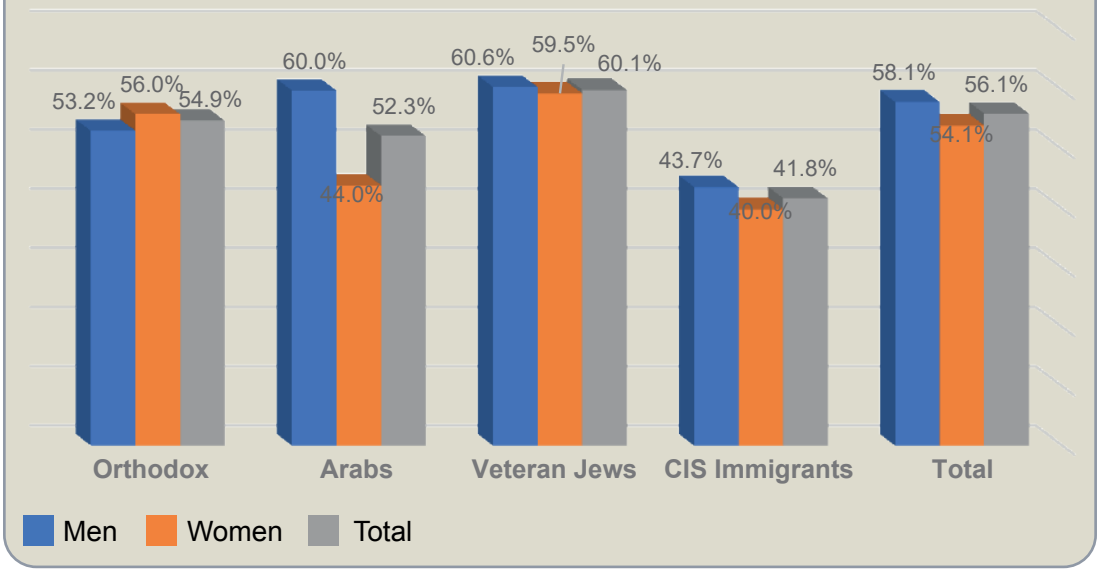


Figure 26: Knowledge of new entrepreneurs in the last two years in Israel, GEM 2018/2019, by sector and gender (%)



In terms of being acquainted with new active entrepreneurs in the last two years, the veteran Jewish sector is characterized by a level of 60%, followed by the Arab sector, and then by the new immigrants sector, with 41.8%. It is noted that in recent years, the new immigrants sector shows the highest EEA rate among the sectors in Israel. This fact may provide an explanation for some of the gap in being acquainted with new entrepreneurs in the new immigrants sector. It may be said with caution that throughout the years, the gaps between the new immigrants and veteran Jewish sectors decreased, which points to the integration of entrepreneurship and employment characteristics into the general population. In Figure 27, which depicts self-perception of entrepreneurial skills and capabilities, the new immigrants sector leads after the Arab sector in terms of appreciation for its entrepreneurial skills.

Figure 27: Self-perception of skills and capabilities to start and manage an independent business in the population in Israel, GEM 2018/2019

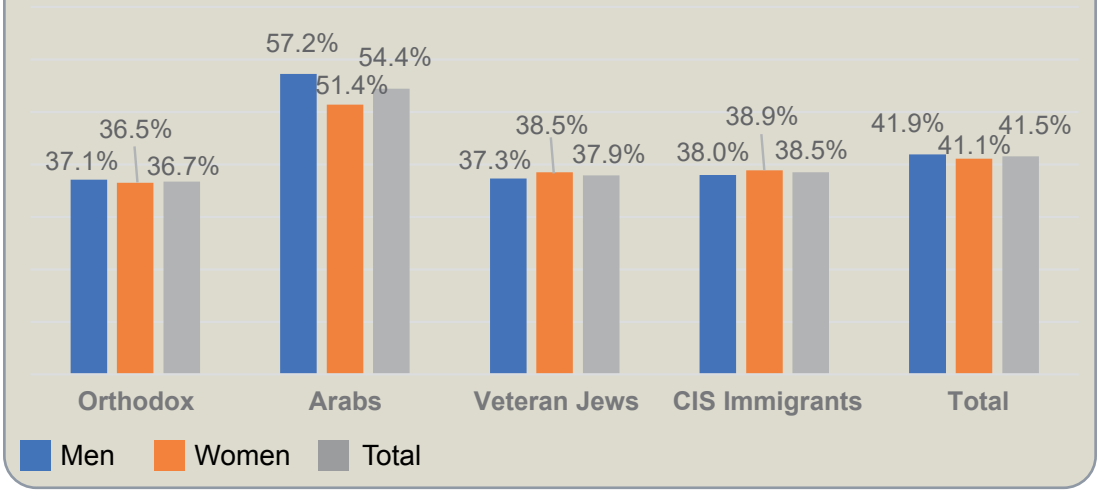


Figure 28: Self-perception of skills and capabilities to start and manage an independent business in the nonentrepreneurial population in developed GEM 2018/2019 countries

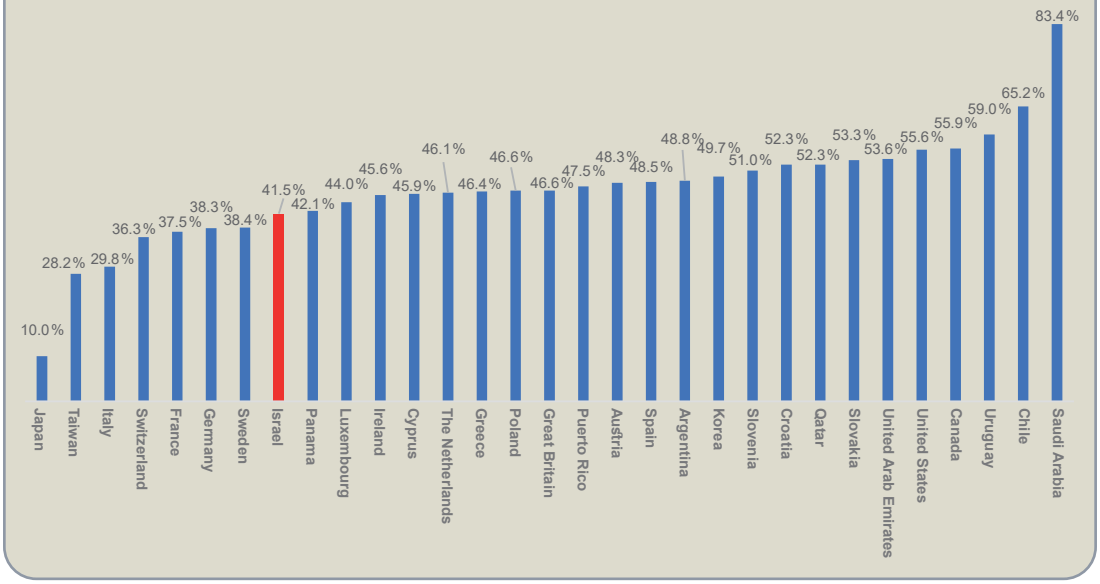


Table 3: Entrepreneurship level data in the various stages according to the GEM model – new businesses, established businesses, intention to start new businesses, and discontinuance of businesses in the year prior to the study

Year of Research	Nascent businesses (up to 3 months paying wages)	New businesses (up to 42 months)	Total nascent + new businesses (TEA)	Established businesses (over 42 months) (EB)	Intention of establishing a business in the next 3 years	Entrepreneurs who closed businesses in the last 12 months
2018	6.8%	4.1%	10.9	3.6%	31.9%	5.0% closed a business 1.9% continued with a different owner
2017	8.4%	5.1%	12.7%	3.3%	30.6%	3.60% 1.6% continued with a different owner
2016	7.04%	4.45%	11.3%	4.7%	25.4%	3.15% 1.25% continued with a different owner
2015	8.4%	3.7%	11.9%	4.0%	21.7%	4.54% 1.04% continued with a different owner
2013	5.3%	4.8%	10.0%	6.0%	24.0%	% 4.8 1.6% continued with a different owner
2012	3.5%	3.0%	6.5%	4.0%	14.5%	4.0% 1.5% continued with a different owner
2010	3.1%	2.1%	5.0%	3.25%	15.3%	3.5% 1.4% continued with a different owner

Use of digital platforms by the Israeli population in 2018/2019 to sell products and create additional employment

The use of digital platforms was raised by GEM's management as an important topic that is quickly evolving in recent years. It is gradually changing the structure, composition and variety of uses among entrepreneurs and consumers. Digital platforms are very flexible, cross borders, and are not subject to some of the trade, taxation, licensing and bureaucratic restrictions that are applied in each country based on its discretion and preferences. In 2018/2019, a new research layer emerged that studies how the adult population ages 18-64 uses digital platforms. The countries that wanted to participate in this portion of the survey sent a series of questions about usage characteristics, methods of payment and motivation to use these platforms. In Israel, we added several questions, whose findings are partially described here (Figures 29, 30 and 31).

Figure 29 shows that orthodox men double the use of digital platforms in average as a means to increase their income and/or make purchases. On the other hand, orthodox women use the platforms the least in this sector. The veteran Jewish sector is the most active among the sectors with an average rate of 11.6%. The Arab sector is in the lower third, with women using the platforms more than men. 10% of the entire population reported using digital platforms, and it appears that use is expected to expand.

Figure 29: Payment methods in digital platforms among the Israeli population, GEM 2018/2019, by sector and gender

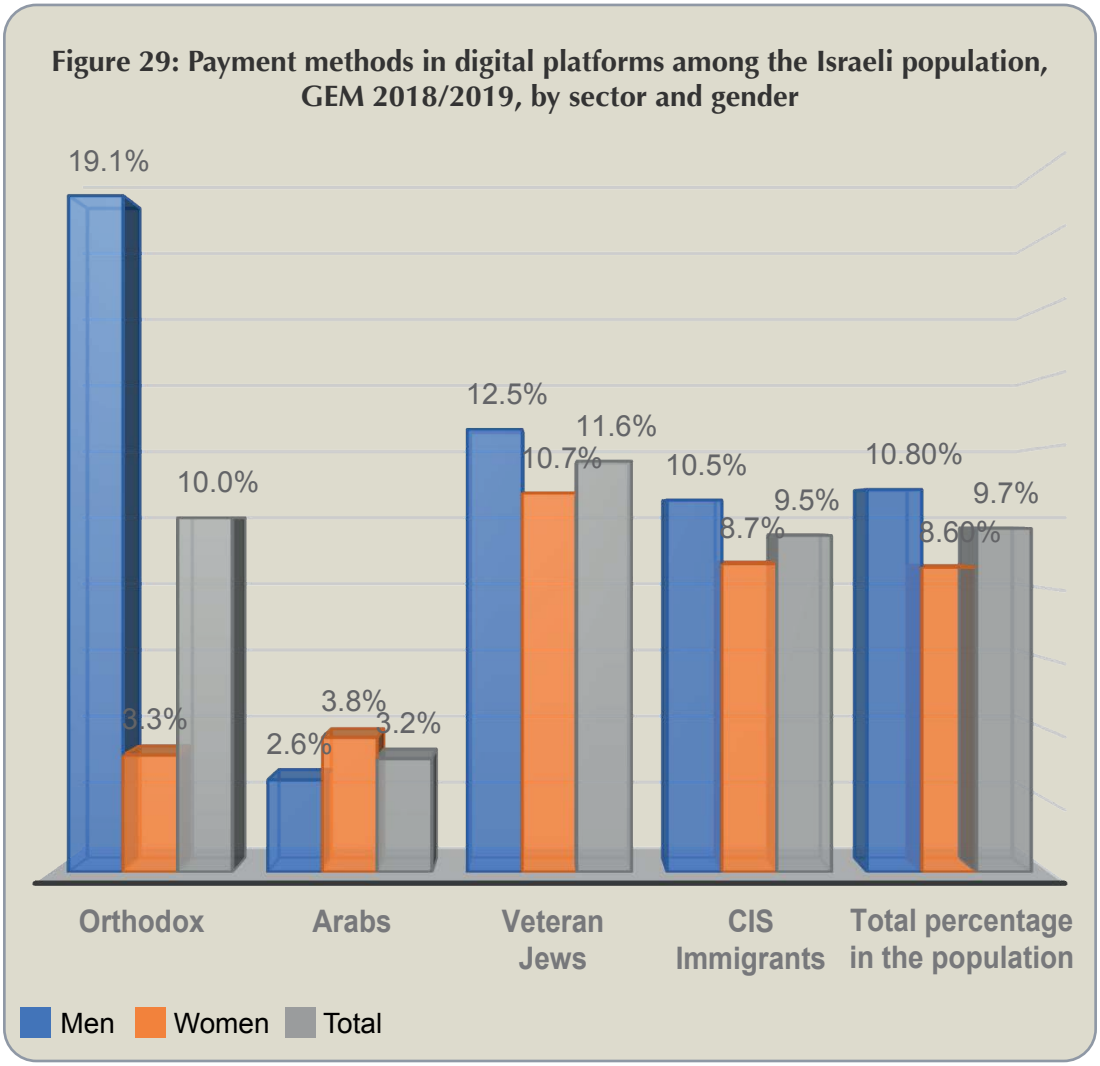


Figure 30 shows that, on average, 55.7% of men prefer to pay online, and only 12.3% prefer to pay in the customer's site. New immigrants prefer to pay online and minimize payments in the customer's site. The reason may be related to the reliability of paying at the customer's site, and in case of nonpayment, it is difficult to recoup it.

Figure 31 shows the significant difference between men and women in the orthodox sector: while average payments among women is online (63.2%) and payments in the customer's site are only 14.9%, orthodox women make 66.7% of the payments in the customer's site. There may be several reasons for the significant differences between the orthodox sector and the others, such as the level of trust between customer and service provider, familiarity and personal knowledge between the parties, and more.

Figure 30: Payment methods by men in digital platforms, GEM 2018/2019, by sector

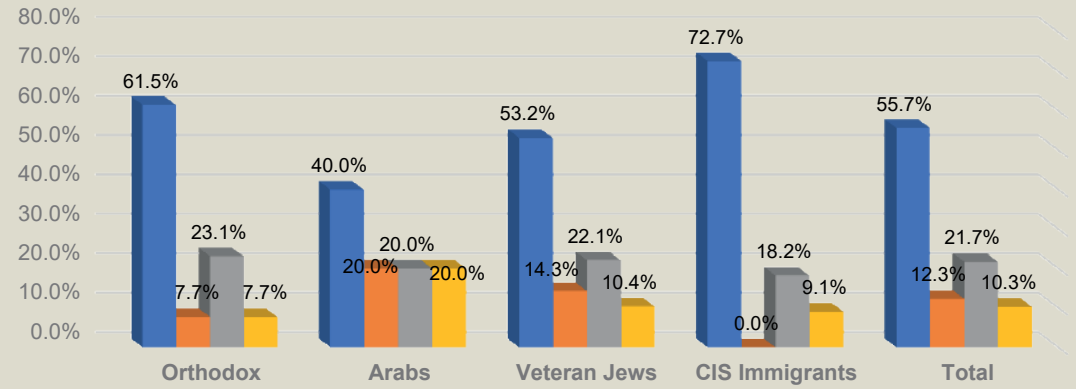


Figure 31: Payment methods by women in digital platforms, GEM 2018/2019, by sector

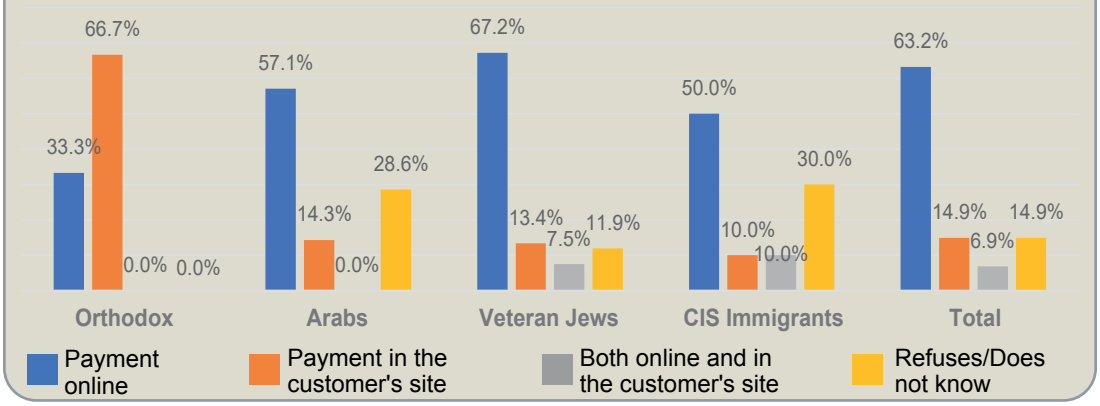
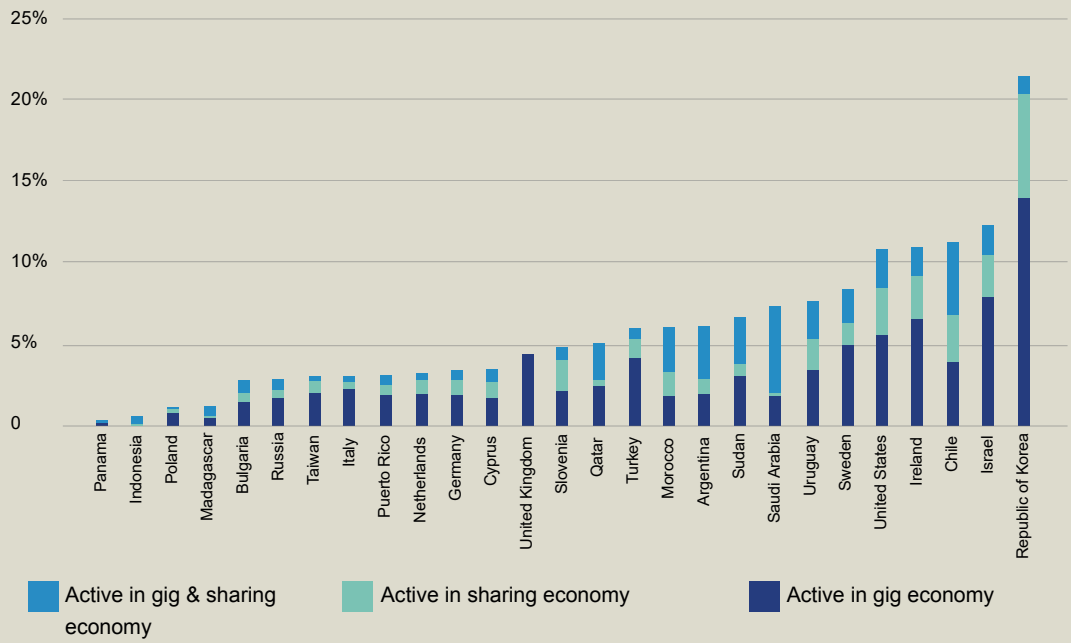


Figure 32: Distribution of use of digital platforms in the gig economy (%)



Source: Global GEM Study 2018/2019.

Israel ranks second among the countries that participated in the study in business activity in digital platforms. The figure shows the participation in the gig economy study only, with economy only, and with gig+ economy. South Korea is in first place. In total, 27 GEM countries that participated in the 2018/2019 Gig Economy study were surveyed. This demonstrates the potential of digital platforms and economic collaborations between entrepreneurs and businesses in the various countries. Trade between businesses is not necessarily related to ownership of the product being marketed or sold by them as an independent entrepreneurial activity.

3. Israeli Experts Survey of the Ecosystem (Entrepreneurial Conditions) in Israel in 2018/2019

The experts survey is conducted every year as an integral part of the GEM study. The survey includes 36 Israeli experts.

The experts classify 12 areas, including the nine background conditions that facilitate entrepreneurship, as well as family businesses compared to nonfamily businesses from a legal perspective, intergenerational transfer systems, and the different attitude towards these two types of businesses. The survey also refers to the gig economy, which was surveyed this year for the first time. All these topics receive scores in a scale of nine classifications, such that a score up to three is considered low and a score above six is considered high. This year, the global GEM also added the NECI indicator, which compares between countries using a more complex/reliable index (for details, see the NECI index of all GEM countries below).

Salient indicators in the experts' report:

1. The experts gave the lowest score to the government's policy about bureaucracy and taxation of young businesses, especially at their inception.
2. The elementary and high-school systems are perceived by the experts as not achieving the educational objective of preparing the younger generation for the market economy and for entrepreneurship, and in particular women in their frameworks.
3. According to the experts, the government's policy of giving priority to the development of young businesses and a supporting system is not achieving its objectives.
4. Internal market loads constitute a grave problem for entrepreneurs.
5. Government programs to promote entrepreneurship are only partially successful, and are not strong enough to lead to rapid and effective growth and to a higher rate of survivability. The opportunities of entrepreneurs to obtain reliable, coherent data from government sources that they need at the beginning of their journey is lacking, and this problem must be resolved quickly.
6. The subject of R&D and its transfer to implementation and application in active companies, which in the past was justifiably praised, seems today less focused, available and effective than in the past. There is also lack of subsidies to help beginner entrepreneurs to implement innovative technologies.
7. New companies find it hard to finance innovative technologies compared to more veteran, established companies. In light of the lack of subsidies to acquire and implement new technologies, the gap between young and established companies widens, making it more difficult for young companies to prevail and grow.
8. In the financial area, where an improvement has been observed compared to the past, there are still difficulties raising investments for beginning entrepreneurs through the stock exchange in Israel, there are no government subsidies, and crowdsourcing is not yet substitute of existing sources.

4. Factors that Limit Entrepreneurship in Israel, 2018/2019, Scores by the Experts (%), by the Number of Experts Who Selected Them

Figure 33 shows the important topics mentioned by the Israeli experts in 2018/2019 as the main factors that limit entrepreneurship in Israel. These factors were classified by the rate of experts that mentioned them. Ten additional topics were mentioned by one expert only, which were not included in this report despite the importance of some (for example, the limitation of the workforce in Israel, limited information for entrepreneurs, and international limitations). The pareto graphs show the strength of each factor and its cumulative contribution to the total 100% impact of the factors described.

Figure 33: Findings of the Israeli experts on the background conditions for entrepreneurship, by their effect on entrepreneurship in Israel, 2018

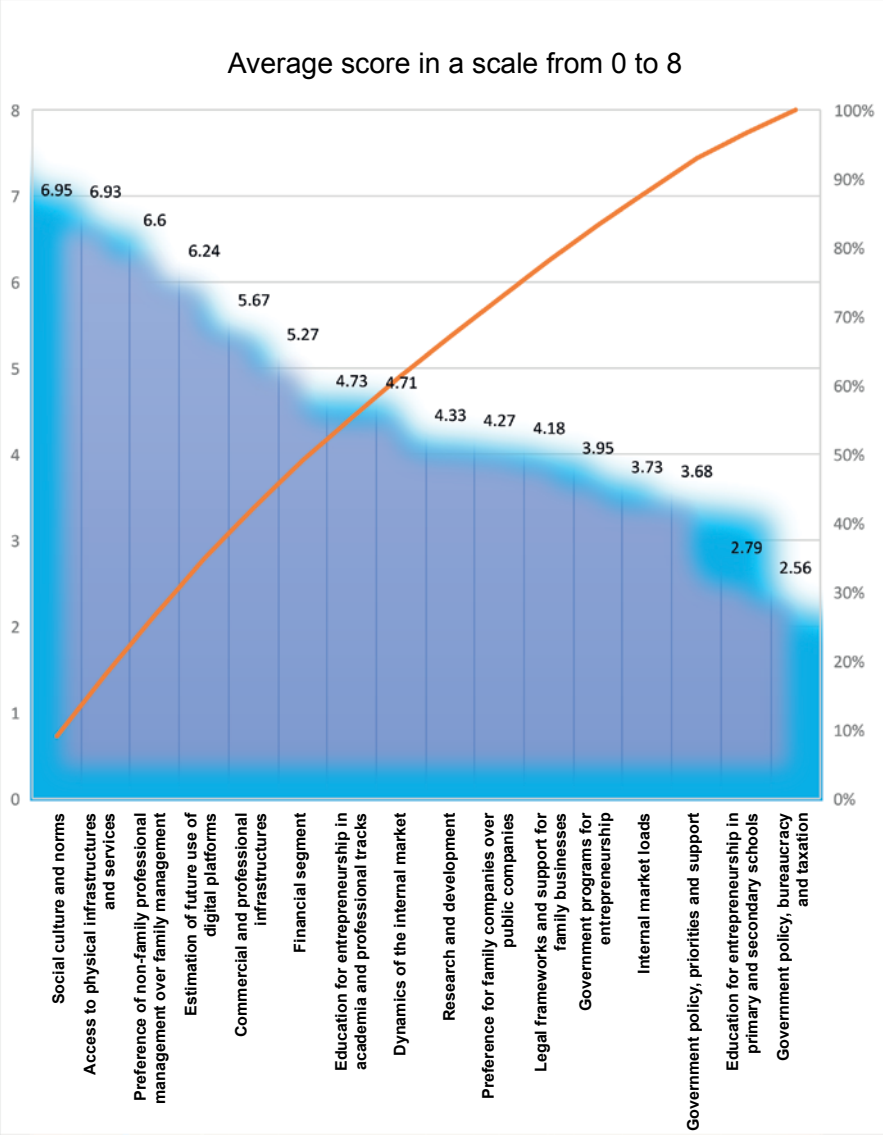
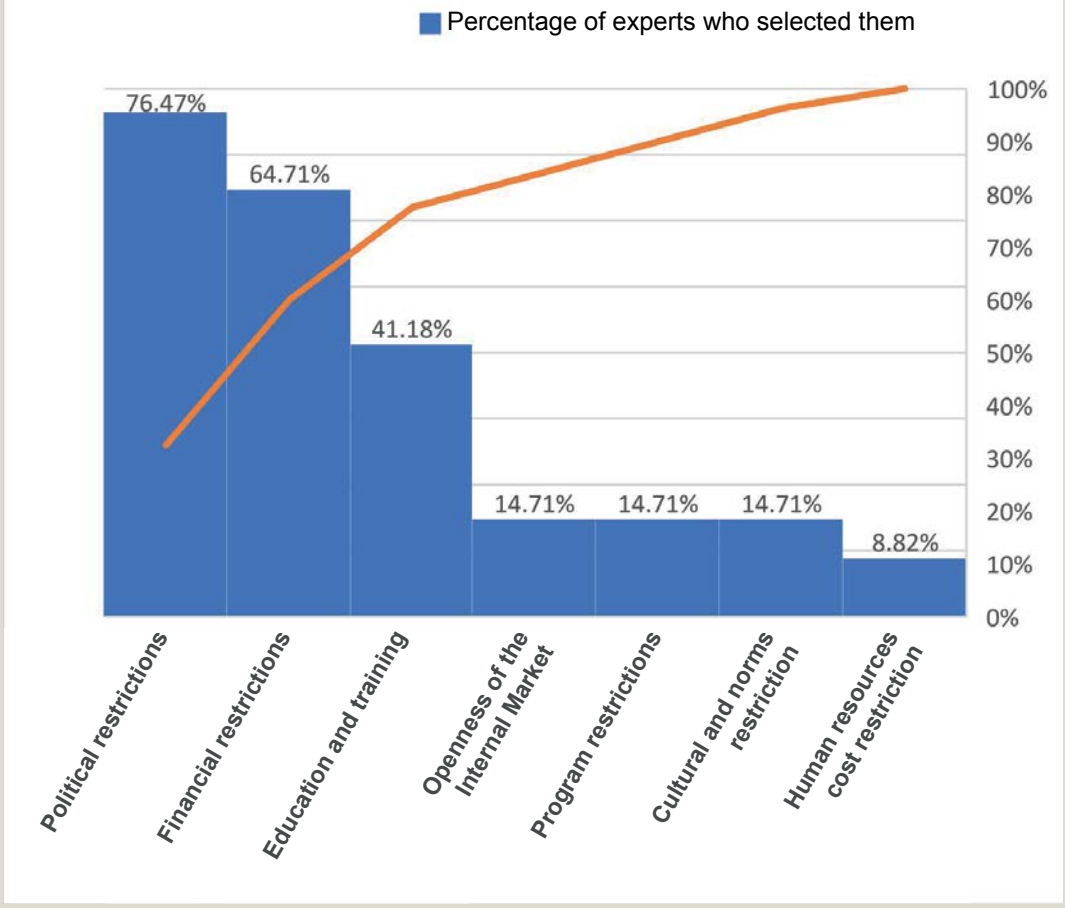


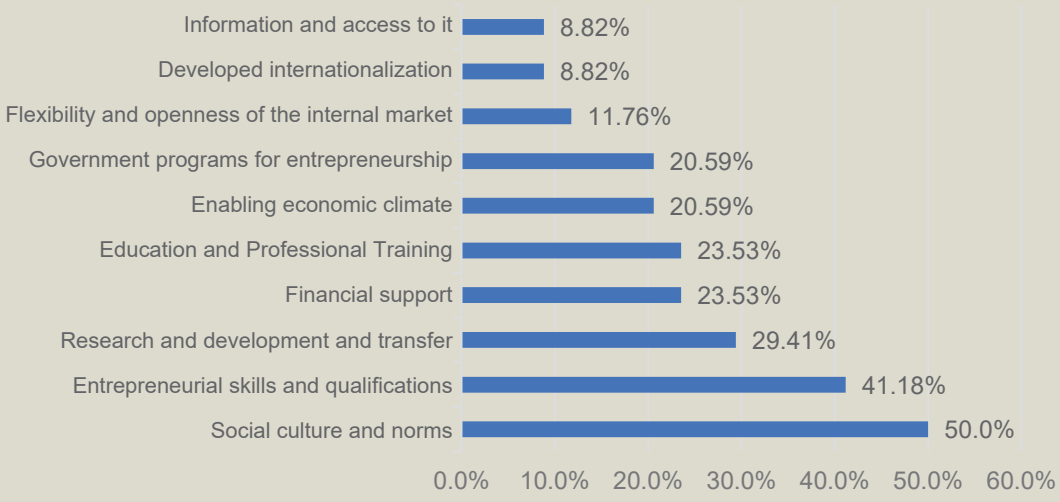
Figure 34: Factors that limit entrepreneurship according to the scores of the Israeli experts who selected them – Israel Experts Survey, NES 2018, (%)



5. Factors that Support Entrepreneurship in Israel; Scores by the NES Israeli Experts Who Selected Them

The Israeli experts mentioned nine main factors that support Israeli entrepreneurship. Additional factors were mentioned by some of the experts.

Figure 35: Factors that support entrepreneurship in Israel, 2018/2019, according to Israel's GEM NES



6. Expert Recommendations 2018/2019

Figure 36: Recommendations of the Israeli experts for areas of improvement of entrepreneurship in Israel, GEM 2018/2019, (%)

The experts classified the factors that limit entrepreneurship in Israel, the factors that support entrepreneurship in Israel, and their recommendations for improvements in areas where self-explanatory weaknesses, insufficient, and inconsistent treatment were found. It is possible to detect areas that are not properly prioritized by the government. Some of the topics receive proper attention, especially those managed by the Ministry of Economy. However, there are also issues in which Israel invests resources and attention whose results are unsatisfactory and that require improvement.

Government activity is essential, and the most significant factor that affects the establishment, development and growth of new businesses; and employment promotes growth and yields.

In Israel, we tend to 'sing our praises' as a high-tech superpower, while we fail to pay enough attention to processes for nurturing the human capital in charge of the task.

The study's results raise a concern that the 'high-tech engine' is weakening due to the lack of 'holistic' government support designed and prioritized for the core subjects mentioned by the Israeli experts.

7. Conclusions and Recommendations from the 2018/2019 Study

1. Prepare a 5-year plan for technological development, innovation and promotion of new businesses headed by a senior minister. The plan will comprise a multidisciplinary team and representatives from government, academia, research and industry, as well as representatives from the Bank of Israel, the business and financial sectors, local authorities, and the public. It is recommended to ensure proper relative representation of women in all groups. Measurable objectives, milestones and processes for monitoring progress will be defined, and the program will be budgeted by the state to support continued, independent operation. It will be updated based on compliance with the milestones that will be defined. Coordination between the government and municipal authorities will prevent duplication and conflicts of interest. It will promote entrepreneurship and new growing businesses, while removing bureaucratic and other obstacles. The plan will drive a coordinated effort that will foster a supporting environment for new, growing businesses, whereby all involved parties will collaborate. This aligned environment will coordinate most of the data required to establish and manage businesses, and will put it at the disposal of entrepreneurs at a small fee. It is recommended that the development of the 5-year plan be entrusted to an independent authority comprising experts as indicated above, and that it be budgeted by allocating multiannual, independent budgets.
2. Improve the educational, training and professional qualification systems. To nurture the human capital of future generations in Israel, it is necessary to make an in-depth change in the education system. Each student in Israel must comply with the basic principles of the curriculum, regardless of sector, gender, religion and race. This is of particularly importance in entrepreneurship studies in middle and high schools. Such a program should advance all students in Israel to a higher level of education, enabling them to adapt to ever-changing technological, economic and normative scenarios. This investment in human capital will contribute later on to an increase in national yield and productivity, and will better support social equality and national consolidation. The change can promote the enormous potential of women in Israel, who are not allowed to advance under social norms that exclude and prevent them from growing. In light of the fact that there is no accessible opportunity to separate state from religion, it is recommended to reduce the involvement of religious institutions that act as political institutions taking roles in the legislative and executive branches in Israel, thus disrupting the implementation of the required changes. A revision of the educational and qualification systems will require a coordinated effort by the Prime Minister's Office, the Ministry of Finance, the Ministry of Education, and additional partners engaged in the organization and rights of employees, as well as teachers, academicians and other organizations. The revision should look into all issues related to reducing density, new learning methods and technologies, so that students can learn on their own, as well as improve the salaries, level and prestige of teachers. It should also be noted that it is necessary to consolidate flexible academic curricula, pay attention to 'soft' skills, and provide opportunities to obtain an academic title 'in instalments'. This will allow students to

venture into employment and entrepreneurial opportunities, while having the option to return to university easily and without constraints.

3. Improve the financial segment: Despite the improvements in financing and the ability of new entrepreneurs to obtain financing to start a new business, this area does not yet respond to the needs of all businesses, and fails to meet the high threshold of developed and developing GEM countries. The development of the stock exchange and opportunities to raise money in issues with economic value are not yet controlled properly, nor sufficiently protected against issues that are more of a gamble and in favor of the issuer. These opportunities do not provide benefits to investors. Crowdsourcing and other methods like B2B or P2P are attempting to establish themselves and raise money for investors and borrowers at their own pace. The public does not have sufficient information about their extent and reliability. They do not yet constitute solutions to the extent required. Private investors (angles) are an important sector, as well as venture capitals. Young and new entrepreneurs fear that investors will take control of finance, marketing and their rights, and thus some of them avoid contacting them. Investors' meticulous preclassification of investments in new entrepreneurs also deter some of the latter. These entrepreneurs are not prepared to lose their 'dream' in favor of the investment and control of investors who have the knowledge and connections required to develop the business. Banking in Israel has not yet made the required change to be able to cope with past mistakes and conservatism deriving from the law and supervision. They should still find new ways to finance new businesses with interest rates that are comparable to those of other investors, with more flexibility and less threats towards small business borrowers. The shift to digital and Internet banking is still insufficient. It is necessary to change the perception of how to manage investments in small businesses, which is a more in-depth change than merely technical or technological.
4. Encourage the activities of EEA as an essential track for entrepreneurs and businesses. This track, which is 'hidden from the eye,' is extremely important for qualified, resourceful entrepreneurs that lack the capital and means to develop their enterprise in an environment that lacks financial security and protection. Large companies in particular take advantage of this track, as they can invest in new areas and develop them taking necessary risks. This track will significantly contribute to increasing productivity in society and in the economy at large. It is necessary to manage this area in an established, comprehensive manner. With the government's assistance and proper reliefs, it can become a more popular track, and another option for entrepreneurs without equity capital who have the skills and capabilities for creativity and business innovation.
5. Allocate budgets and give priority to the activities of the Israel Competition Authority. Reviewing enforcement over companies, organizations and interested parties that work to block markets from new or small companies, and over large companies that block the entry of new businesses into the Israeli market. Activities to enforce the law against Israeli or foreign capitalists that take over companies in Israel and operate illegally against competitors. The new tycoons who replaced the old ones point to a problem that has not yet been resolved; rather, they have been replaced by those who use the same methods to shrink the market and worsen the status of consumers and other companies.
6. Incentivize the Israel Central Bureau of Statistics and allocate budgets for managing the problem of population data, the registrar of companies, and infrastructures to promote the level of statistical data in Israel to the level required from developed countries. The issue of data and its reliability is related to almost every area of activity in the Israeli economy.

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Appendices

Appendix 1: New NECI Index

The new NECI index launched by GEM in 2018/2019 classifies countries by their ecosystem level. For more detailed information, visit the global 2018/2019 GEM website.

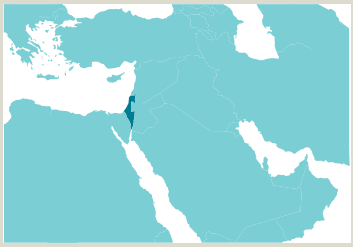
RANK ON EFCs Global State	COUNTRY	NECI_10	N	STD.DEV.
1	Qatar	6,86	54	1,00
2	Netherlands	6,69	40	0,83
3	Taiwan	6,52	36	1,27
4	India	6,32	72	1,40
5	USA	6,19	36	1,19
6	United Arab Emirates	6,11	36	1,44
7	Switzerland	5,97	35	1,02
8	France	5,94	38	0,73
9	China (PRC)	5,90	36	0,89
10	Luxembourg	5,82	38	1,02
11	South Korea	5,74	98	0,96
12	Canada	5,73	37	0,85
13	Austria	5,70	38	0,90
14	Thailand	5,66	36	1,27
15	Sweden	5,58	37	0,69
16	Japan	5,54	39	0,87
17	Spain	5,53	36	1,00
18	Poland	5,52	36	0,76
19	Germany	5,46	53	0,89
20	Latvia	5,43	36	0,96
21	Chile	5,43	50	0,90
22	Ireland	5,41	36	1,02
23	Israel	5.40	36	0,89
24	Slovenia	5,38	36	0,78
25	Argentina	5,37	38	0,76
26	Cyprus	5,29	51	1,07
27	Turkey	5,24	36	1,22
28	Colombia	4,99	38	1,16
29	Egypt	4,92	50	1,02
30	Russia	4,89	36	1,09
31	Lebanon	4,69	37	0,77
32	Peru	4,69	40	1,13
33	Saudi Arabia	4,62	37	0,75

RANK ON EFCs Global State	COUNTRY	NECI_10	N	STD.DEV.
34	Greece	4,60	36	1,14
35	Slovak Republic	4,58	36	0,76
36	Guatemala	4,53	36	1,02
37	Iran	4,46	37	0,96
38	Sudan	4,45	36	1,20
39	Brazil	4,35	41	0,99
40	Panama	4,28	36	0,82
41	Madagascar	4,22	78	0,88
42	Puerto Rico	4,19	37	1,01
43	Croatia	4,06	39	0,97
	Total	5,33	1800	1,22

Appendix 2: Profile of Israel's Entrepreneurs in the Global GEM Study

Country Profiles

Israel



Population (2018)**:** 8.7 million

GDP growth (2017, annual % change)**:** 3.3%

GDP per Capita (2017; PPP, international $)**:** 36.4 thous.

World Bank Ease of Doing Business Rating (2018)**:** 73.23/100; **Rank:** 49/190

World Bank Starting a Business Rating (2018)**:** 92.35/100; **Rank:** 45/190

World Economic Forum Global Competitiveness Rank (2018)**:** 20/140

World Economic Forum Income Group Average (2018)**:** High

Overall, the ecosystem in Israel is diversifying. The government has launched a new National Innovation Authority offering projects aimed at both industry and academia, pushing forward with Industry4.0 and digital technologies. Furthermore, SMEs are increasing their appeal to would-be entrepreneurs. Concerning education, new academic entrepreneurship programs, both at the undergraduate and graduate levels, are offered by the Council of Higher Education.

The innovation and entrepreneurship ecosystems in Israel continue to evolve. The Intra-preneurship rate went up significantly to 8.6%. Assuming that intra-preneurship has a significant positive impact on the GNP, policymakers in the country should take note of its importance and offer their support for established large corporations. The entrepreneurship intentions were up to 30.6%, which means that approximately a third of the adult population, aged 18-64, have such intentions. This meets with an increase in the fear of failure to over 50%, higher for men (54.5%) than for women (52.8%).

Self-Perceptions About Entrepreneurship	Value	Rank
Perceived opportunities	56.2	12/49
Perceived capabilities	41.5	38/49
Fear of failure	60.2	7/49
Entrepreneurial intentions	31.9	17/49

Activity	Value	Rank
Total early-stage Entrepreneurial Activity (TEA)		
TEA 2018	10.9	11/31
TEA 2017	12.8	22/54
TEA 2016	11.3	27/65
Established business ownership rate	3.6	N/A
Entrepreneurial Employee Activity – EEA	7.2	6/49

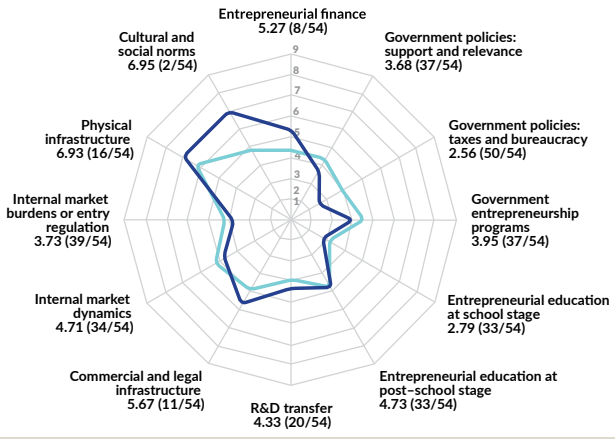
Motivational Index	Value	Rank/48
Improvement-Driven Opportunity/Necessity Motive	43.9	N/A

Gender Equality	Value	Rank/48
Female/Male TEA Ratio	0.72	21
Female/Male Opportunity Ratio	–	N/A

Entrepreneurship Impact	Value	Rank/49
Job expectations (6+)	22.9	19
Innovation	32.9	13
Industry (% in Business Services Sector)	7.3	35

Societal Value About Entrepreneurship	Value	Rank/47
High status to entrepreneurs	85.0	2
Entrepreneurship a good career choice	66.0	18

EXPERT RATINGS OF THE ENTREPRENEURIAL FRAMEWORK CONDITIONS



EFCs scale: 1 = very inadequate insufficient status, 9 = very adequate sufficient status
Rank out of 54 recorded in brackets

GEM

Global Entrepreneurship Monitor

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