

In Praise of Chutzpah

**Start-Up Nation: The Story of
Israel's Economic Miracle**

by Dan Senor and Saul Singer

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304 pages.

*Reviewed by Robert J. Strom
and Alyse Freilich*

Within forty-eight hours of the devastating earthquake that struck Haiti in January 2010, Israeli emergency-response teams were among the first on the scene, including search and rescue squads (and a canine unit), vital supplies, and two hundred medical workers. In fewer than eight hours, the Israelis had assembled the first fully operational field hospital. The facility contained everything from a pediatric ICU and imaging devices to sophisticated communications equipment capable of sending digital X-rays to Israel for analysis. The hospital's communications network was so effective, in fact, that the international press soon began to rely on it when most

other communication channels were down.

Readers of *Start-Up Nation*, the 2009 book by Dan Senor and Saul Singer, would probably not be surprised by Israel's response to the catastrophe in Haiti. The speed, efficiency, and technological complexity of its humanitarian operation are all consistent with the book's description of a country where lack of hierarchy and devolution of authority permit nimble and innovative behavior that often comes less easily to other nations. The Haiti response—and the history of Israeli aid following other disasters around the world—suggest that innovative thinking in Israel extends beyond the realms of business and government to several diverse fields.

In *Start-Up Nation*, the focus is on the economic implications of Israel's unusual entrepreneurial culture. Senor, adjunct senior fellow at the U.S. Council on Foreign Relations and former foreign policy adviser to the U.S. government, and

Singer, columnist and former editorial page editor of the *Jerusalem Post*, examine how Israel's kibbutz roots have given way to an economy that represents the greatest concentration of innovation and entrepreneurship in the world today. The authors systematically investigate the "secret sauce" behind Israel's technological innovations, its high density of successful start-up companies, and its economic boom. Each chapter profiles a different aspect of the nation's culture and history, offering a vivid description of its relationship to the entrepreneurial economy.

The book opens with the fascinating story of the pivotal meeting at the Davos World Economic Forum between Shai Agassi, CEO of the young company Better Place, and the CEO of Renault and Nissan, in which the two agreed to partner in the former's initiative to create electric cars. Equally compelling stories of Israeli entrepreneurs are found throughout the book, providing the reader with insight into the unique Israeli ethos that makes local innovation seem almost commonplace. In other chapters, for instance, readers learn about the establishment of Intel's outpost in Israel, the vital contributions this outpost has made to the company's current success, and the tenacity that enabled Intel Israel to operate productively during the Gulf War.

The authors also provide a broad historical perspective for these accounts of individual entrepreneurs, including an analysis of Israel's conflicts with neighboring states, the pressures these relationships create, and their economic implications. In this context, the authors suggest that Israel's compulsory military service is responsible for much of the country's high-tech success. The army brings together the most talented young people in the country in its elite units, maintains their relationships through ongoing reserve duty, gives them tremendous responsibility, and inculcates a culture of teamwork, perseverance, informality, and assertiveness that seems to permeate society as a whole. According to the authors, the military culture that encourages soldiers to challenge superior officers and that tolerates "constructive failure" on account of lessons learned carries over into society at large, and invariably contributes to innovative thinking in the private sector.

In a discussion of Israel's economic history, the authors address what they see as the myth that Israel was born as a thoroughly socialist state. They detail the government's important role in helping build the new economy, from its investment in large-scale infrastructure projects to its creation of the Yozma ("initiative") venture-capital matching program in 1992,

which attracted foreign venture investment and catalyzed the development of a private venture-capital industry in Israel. The history of immigration is likewise seen by the authors as central to Israel's innovative strength. Descriptions of the waves of new immigrants and the country's efforts to absorb them reveal the importance of newcomers to a society that values fresh talent, risk, and reinvention, as well as the challenges this growth and diversity can create. The book closes with a discussion of the threats facing Israel's economic miracle, including the diminished supply of venture-capital dollars, over-dependency on export markets, brain drain from local universities, and Israel's low workforce participation. In the end, the reader emerges not only with an understanding of the underpinnings of entrepreneurship in Israel, but also with an appreciation for Israel's history, economy, and culture—and the people that made it all happen.

To be sure, the authors of *Start-Up Nation* buttress their historical and economic analysis with solid statistics. Nevertheless, the book's approach is fundamentally anecdotal. Its acute cultural study gives the reader a valuable counterpoint to the empirical research on entrepreneurship coming out of universities and think tanks. As New York University

economist William Baumol has often noted, this sort of empirical research is inherently limited. Innovations are, by definition, new and different, making it very difficult for statisticians to identify multiple items that may be added together, averaged, or correlated with other variables. Baumol writes that hypotheses regarding entrepreneurship “resist testing by standard procedures such as statistical analysis or controlled experiment.” While economists have brought greater rigor to analyses of topics such as company formation, growth, and death, as well as the demographic characteristics and important economic role of entrepreneurship, it may in fact be historical works and cultural analyses like *Start-Up Nation* that offer the greatest potential for practical lessons on how public policies can encourage a culture of innovation.

It is one of *Start-Up Nation's* strengths that it leaves the reader with a sense that the Israeli experience may be understood. The authors' survey of the country's past and present really does paint a convincing picture of the elements that have combined to create the secret sauce for entrepreneurship there. Yet while the authors make no claim to academic rigor, and never suggest that their analysis is intended to be comprehensive, policy domains

considered vital to entrepreneurial economies elsewhere are notably absent from their account. These include, among others: intellectual property laws that strike the right balance between giving sufficient incentives to inventors and imposing legal roadblocks to new entrants; property and contract rights that are enforced by an independent judicial system; bankruptcy and unemployment protections that mitigate the risks of business failure; antitrust laws that allow for healthy competition; regulatory frameworks that do not impose onerous compliance requirements on small businesses; marginal income tax rates that encourage entrepreneurial endeavors by maximizing their economic rewards; and financial systems that offer new firms access to capital.

Enumerating the ingredients in the secret sauce of entrepreneurship is no small achievement, but the more important question remains the extent to which the Israeli experience may be replicated. Even if we assume that the authors have indeed pinpointed the most vital ingredients, what proportions of each are required? And in what order should these ingredients be added? Most importantly, the book begs the question: Can Israel's experience be reproduced elsewhere, if the same ingredients are used? Or,

are the elements the authors describe unique to Israel?

The book's American readers may be tempted to try and draw conclusions from the Israeli experience. There are certainly many similarities between the two nations: Both are highly productive countries that are world leaders in technology and innovation, and both are nations of immigrants that face the challenges of a diverse population and wide income disparities. But how far do the parallels go when it comes to culture and public policy?

It is no doubt true that the United States could learn from Israel's use of the military as a resource for private innovation, as well as from its immigration policy, which since the nation's founding has welcomed new talent with open arms. But quick comparisons and conclusions may be misleading. Consider, for example, the Israeli government's involvement in spurring innovation. The Yozma program was very successful in fostering a private venture-capital community and driving entrepreneurial activity in a young nation. Orna Berry, one of Israel's leading entrepreneurs and the nation's former chief scientist, told the authors, "Before Yozma, there was nothing." But while the Israeli program was successful, a similar program would not necessarily

achieve results in the United States. For that matter, it is not even clear that in the current environment, a similar program would be successful in Israel.

Indeed, Dan Breznitz, a professor at Georgia Tech, has studied state efforts to nurture IT industries and explicitly cautions against learning global lessons from the Israeli case. Israel's policies, he explains, were built around the need to diffuse technological capabilities that already existed domestically. Hence, he writes, "The lessons other countries can learn from Israel are limited, helpful only in certain stages." States that do not already have research and development capabilities, he explains, should look elsewhere.

Similarly, Harvard Business School's Josh Lerner addresses the difficulties in public efforts to foster entrepreneurship and venture-capital availability. He highlights Yozma as an incredibly successful government effort to stimulate the venture industry, and uses it to illustrate the importance of developing strong interconnections with venture funds abroad. Nonetheless, he, too, advises caution: "The stark truth is that many more initiatives have been unsuccessful than successful."

Perhaps the most significant of barriers for any nation hoping

to emulate Israel's entrepreneurial example is the role of culture, a theme that runs throughout *Start-Up Nation*. While the book offers fascinating insights into the relationship between Israeli culture and its institutions, especially the military, it is not clear how another country could—or would even want to—develop a top-down program designed to mold something as fundamental as its citizens' attitudes toward risk, failure, teamwork, and authority. Indeed, the importance of culture in determining a society's entrepreneurial activity has long been emphasized by thinkers such as Max Weber, Douglass North, and David Landes. The challenge, then, is to determine which generalizable lessons may be learned from innovation that takes place in a particular place at a particular time among a particular people. Historical and cultural accounts such as those provided in *Start-Up Nation*, can offer subtle but vital lessons. By comparing a particular nation to others, we begin to understand the variables that affect entrepreneurship, the institutions that drive it, and the diverse impact of culture and religion. We learn about the complex web of social and institutional influences on entrepreneurship and how these influences have themselves evolved. And finally,

we can suggest economic models that may encourage entrepreneurial and innovative activity.

*S*tart-Up Nation, of course, focuses almost entirely on new businesses. But to understand the best model for an innovative economy, a broader view is required. In their book *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity* (2007), William Baumol, Robert Litan, and Carl Schramm articulate the importance of the right blend of entrepreneurial and established firms in an economy for encouraging innovation and growth. Building on Baumol's theories in *The Free-Market Innovation Machine* (2002), these economists explain that the churning of new companies offers the promise of entrepreneurship, while the large, established firms refine these ideas and engage in more routine or incremental innovation. *Start-Up Nation* discusses large firms almost exclusively in the context of the multinational outfits that have established research and development operations in Israel. A few large Israeli firms are mentioned, including Netafim, Checkpoint, and Israel Aircraft Industries, but as a result of the book's narrow focus on start-up companies, the authors neglect the importance of the interplay and bal-

ance between small and large firms in an entrepreneurial economy.

The Israeli government, in fact, was very aware of the role large firms can play in an innovative economy, and took an active role in tying its start-ups to large, multinational corporations. Israel's Binational Industrial Research and Development Foundation (BIRD) explicitly sought to develop partnerships between Israeli research and development firms and American firms focusing on product definition and marketing; moreover, BIRD was active in luring multinational companies to open research and development centers in Israel in the 1980s. Israel may eventually boast a greater proportion of its own large firms to achieve this optimal mix of the new and the established. However, it is also easy to envision a scenario in which Israel creates a slightly different model for achieving this same balance. Forced to think and act globally, it may continue to build and maintain strong relationships with established firms in other countries, effectively balancing its own small companies with larger ones abroad. While some of these relationships will be like those profiled in the book, in which a multinational firm founds an Israeli research and development center, other types may also emerge. Indeed, many Israeli start-ups are

eventually sold to large companies abroad, as in the sale of Fraud Sciences, a start-up with the technology to fight online fraud, to PayPal. And the investment of foreign capital in Israeli start-ups means that firms outside of Israel will always have a significant stake in these businesses.

Ultimately, *Start-Up Nation* succeeds for two reasons. First, the question it asks—and answers effectively—is compelling: What is the secret sauce that has contributed to Israel’s entrepreneurial success? All over the world, people seek the seemingly elusive answer to the question of how companies are born and encouraged to grow. From potential entrepreneurs to investors to policymakers to everyday citizens, all want to live in a vibrant and successful society. While not all the lessons learned in Israel may be transferrable to other countries, the reader certainly gains an understanding of the forces that led to extraordinary innovation in at least one particular time and place.

Second, and perhaps more important, Senor and Singer go beyond explaining Israel’s success story to communicating the excitement of entrepreneurship on a very personal level. Their captivating descriptions of the emergence of new businesses such as Fraud Sciences and Better

Place allow the reader to see where business ideas come from—not just the structural and cultural backdrop to these ideas, but how they developed in individuals’ minds, who the entrepreneurs were, and the sometimes circuitous routes that enabled them finally to bring their ideas to the market. Readers are made to understand the personal motivations of other players in the Israeli economy as well, from the story of venture capitalist Jonathan Medved, whose passion for Israel and its high-tech scene often supersedes his interest in promoting his own company, to the description of the authors’ interview with President Shimon Peres and his infectious enthusiasm for new businesses. The book shows that entrepreneurship is appealing not only because of the wealth it can bring to a given society, but also because of the energy and excitement that new companies can create for their founders, for those who become part of the fledgling enterprise, and for the communities that benefit from the new technology.

Start-Up Nation suggests that Israeli society is already infected with this passion for entrepreneurship—and that public support may be a factor in the nation’s success. Yet perhaps the real test of the book’s impact will be whether, in documenting Israel’s

extraordinary story of inventiveness and prosperity, it can spark enthusiasm for greater levels of entrepreneurship around the globe. After all, economic growth and innovation are not likely to spread unless nation after nation can achieve a broad consensus, culture notwithstanding, in favor of the policies necessary to reach those

goals. *Start-Up Nation* shows why the world has every reason to follow Israel's lead.

Robert J. Strom is director of research and policy at the Ewing Marion Kauffman Foundation. Alyse Freilich is a manager in research and policy at the Ewing Marion Kauffman Foundation.