



## What to do when everything changes

**Israel has a thriving high-technology startup sector, which is based on world-class expertise and entrepreneurial talent. But nobody is perfect and even these sophisticated venture companies can improve in their management of uncertainty. When faced with risks and uncertainty, most high technology start-ups in Israel's telecom industry carry out too much planning and then tend to adopt an insufficiently flexible stance. Conversely, the start-up companies facing low uncertainty appear to make too little diligent planning.**

All this according to a new study by the INSEAD Center Israel.

In Shanghai, which is often perceived as a less sophisticated environment, the researchers found that Chinese high-tech start-ups do not cling as much to their original plans in the face of adversity and are more willing to experiment and change course.

The study was carried out by **Professor Christoph Loch**, director of academic activities at INSEAD's Research Center in Israel; **Dr Svenja Sommer** of Purdue University; **Dr Paivi Jokela**, a researcher at the Center; and **Doron Nahmias**, the Managing Director of the Center.

In Israel, the high-tech sector is booming and it has become a key player in the country's rapid economic growth.

And it's proving fertile ground for research for Loch, who is also Professor of Technology Management at INSEAD and Dean of the PhD Programme.

He's curious to delve further into the subject of how

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top management copes with uncertainty and risk in high technology start-ups.

Loch told INSEAD Knowledge in Israel: "It's interesting because high technology start-ups (form) a very active sector; there is a lot of success and there's very positive expertise."

Many entrepreneurs venture into high-tech start-ups hoping to make their fortune but the path to success is often strewn with obstacles and unforeseen problems.

Loch and his colleagues hope to help such start-ups navigate risk and uncertainty, as well as provide tools for ambitious entrepreneurs with good ideas to succeed in this arena in future.

The INSEAD professor was in Israel for the annual summer conference of the INSEAD Israel Research Centre to reveal the results of six months' research.

The team selected 100 telcos – 51 responded. They filled a four-page questionnaire and a senior manager (CEO, founder or direct report) took part in a thirty-minute interview on how they deal with

uncertainty.

Sommer, a former PhD student at INSEAD who is now an Assistant Professor of Management, told the conference that, of the companies that were not facing a lot of risks or complexity, only 40 per cent performed formalised detailed planning.

In other words, she says, 60 per cent of the companies did not take the time to identify what the risks were, nor what they should do if certain factors arose.

They could, she asserts, really benefit from detailed planning.

However, their research discovered that at the opposite extreme, intensive planning was undertaken.

Sommer concedes that although some planning is necessary, the problem was that too much of it tended not to be very beneficial to the start-ups. “You should have some idea in which direction to start but going into the details beyond the next milestone is pretty futile. Or in the worst case (it) can actually prevent you from looking at opportunities that come popping up,” she says.

The team is also drawing upon previous case studies in other countries on this topic, as well as a recent study in China.

They discovered that while the Chinese are doing interesting and novel work it is not as sophisticated as that in Israel.

“Here in Israel these companies are absolutely cutting edge,” Loch says.

But the researchers found an interesting contradiction. According to Loch, on first impressions observers comparing high-tech ventures in Shanghai with those in Israel where everyone wants “the whole thing,” would tend to stereotype the Chinese as being less sophisticated.

But, he says, maybe a realisation of one’s own limitations tends to lead to a greater ability to change course and to experiment – that would be an unexpected comparison of the two cultures. “And that is a striking thing,” he says.

Instead what they witnessed among Israeli start-ups were statements of being flexible, but when looking at the detailed actions, a tendency to cling to their plans and a reluctance to exhibit as much flexibility as claimed.

“It’s the opposite of what you would expect from this stereotypical comparison, and that’s why I think it’s

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worthwhile asking some questions.”

Another striking discovery was that the Israeli start-ups carried out too few parallel trials, especially on the technological side. “For example, if I cannot predict (because of the complexity of the system I am developing) whether the module provided by supplier A works best with my system or the module supplied by supplier B, I may have to try them both and choose the best.”

According to the researchers, these trials do not have to involve the whole project and could be a small part of it. They add that if companies ignore this as an option, it could prove costly for the company.

There was also insufficient communication across a number of the companies and sometimes a tendency to shy away from risks and seek an early exit.

Loch advises venture capital firms to engage more with their start-ups rather than relying only on formal hurdle revenues or profits or technical milestones to be met. This increases the chances of success and can create synergies that were not there before.

### Between risk and uncertainty

What the team did find was that the Israelis owe their success very much to their very high technical competence. That said, they could increase their success rate by uncertainty management.

The key to this is making a distinction between risk and uncertainty.

#### Six Steps to Start-Up Management

1. Manage the core pieces of your venture differently depending on uncertainty.
2. Explicitly invest/earmark resources for managing uncertainty and complexity.
3. Consider being selective and learning in a targeted way.
4. Stop winging it: structured planning and risk management are the basis of everything.
5. Do not back away from risks: take risks but ride the waves. Deal with uncertainty rather than exiting early.
6. VCs – stop delegating oversight to 26 year olds – engage in the details so you can help addressing problems

One method is project risk management, a set of systematic procedures to identify what can go wrong to assess priority and develop counter measures.

The researchers say there are many things that will not necessarily be surprises if a company takes

some time to work through its operations. For example, if a start-up is supplied by a single source that closes down overnight or in a very short time, what action is it going to take?

The INSEAD Israel Research Centre is providing start-ups with the management tools to deal with surprises that are inevitable in a start-up —things happening to you that you could not anticipate, no matter how much you plan. One tool is the parallel trial as mentioned above.

Another is trial and error. Loch concedes that this can attract scepticism that it is too expensive for young start-ups, but he argues that parallel trials and a trial-and-error approach can be applied to the part of the business where key knowledge is still lacking.

The idea is that for each piece the right level of risk management can be found to tackle the uncertainty that lies within each section.

Loch cites an example of this done by him with a start-up CEO in the United States, Elaine Bailey, who broke a company down into as many as ten sections.

It soon emerged that of the ten pieces, there were eight areas where it was clear where the problems were and what should be done.

There were the usual problems that could be tackled with traditional, time-honoured solutions such as giving the staff targets, warnings and simply getting the job done.

But, he says, there were two areas where there were simply huge knowledge gaps.

The answer then was for the CEO to figure out what was needed to be done.

And the answer could involve throwing out the current strategy and doing something totally different.

Loch explains: “Now to write out a detailed plan is totally useless because you don’t know what you’re going to find - the only thing you know at the moment is that you don’t know much.”

The value of this activity is that a start-up’s main energy is being channelled not on 80 per cent of the company that can be sorted out. It only has to be flexible and figure out a new way to proceed for 20 per cent of the company. The CEO now knows where the focus has to be directed.

Loch, the co-author of the book “Managing The Unknown – A New Approach to Managing High

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Uncertainty and Risk in Projects” worked as a consultant for McKinsey in San Francisco and Munich before joining INSEAD.

Launching a high-tech company presents enormous challenges, he told INSEAD Knowledge: “Running a start-up in high tech is like you are running at 100 kilometres an hour through the forest in fog that doesn’t let you see further than your nose.”

“So how can you avoid crashing yourselves to death, running into a tree? Are there methods to do this? The answer is yes.”

The INSEAD Israel Center will use the results of this study together with several other studies to create a program “Hi-Tech Hi Growth,” to help start-ups and companies in Israel to use better management tools for building winning business models, mobilise scarce resources and deal with the high uncertainty that comes with building a new business.

“If you can help these companies to apply methods about this then you are helping them to create value - that’s the motivational value of doing this.”

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