

# Strategy for being competitive

Yossi Sheffi is the Director for the MIT Center for Transportation and Logistics and promotes the study and development of logistics techniques in Europe and Latin America.

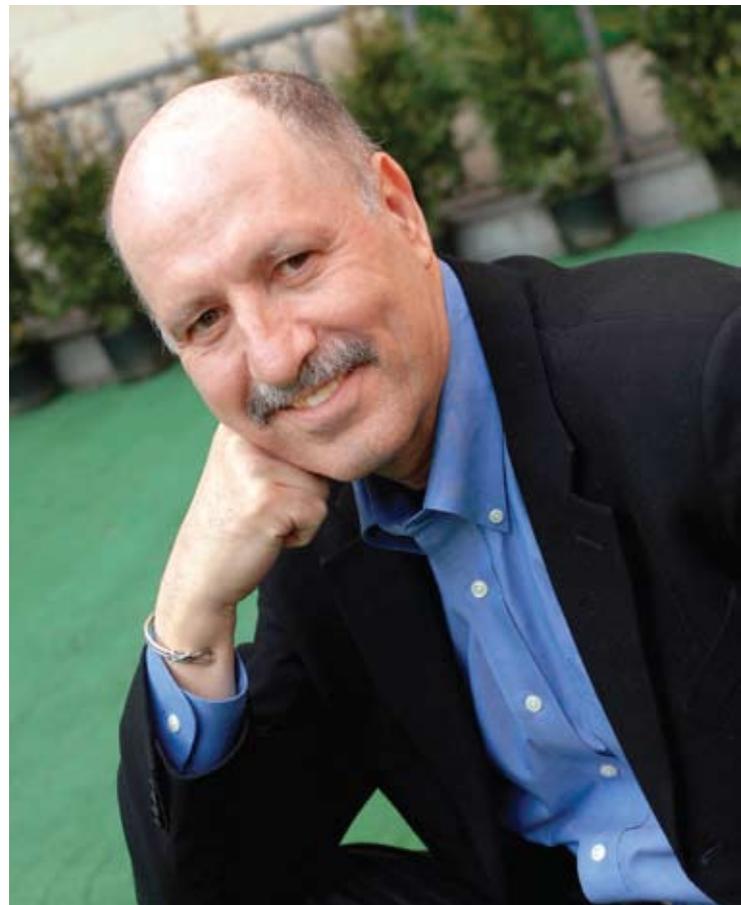
## DOCTOR YOSSI SHEFFI

Por Luis Diego Quirós

Within a globalized world, company distribution and organization take on greater importance. There are a few worries that keep entrepreneurs awake at night such as how to reach customers and generate value through logistics strategies. The activities within this sector

Are the bridge between production and markets, which are separated by time and distance. Entrepreneurs place greater attention on their logistics because, over the last 15 years, the topic of the supply chain has marked commercial relationships. Customers expect better service; purchase possibilities grow within the markets on a daily basis and competition is even more aggressive.

Although this does not deal with a recently applied discipline, logistics has gained more momentum over the last few years within corporate sectors and even more within academia. One of the more outstanding cases has been Yossi Sheffi, professor at the Massachusetts Institute of Technology (MIT) where he is the director for the Transportation and Logistics center and is amply renowned as the international leader within the world of trans-



portation and logistics. The Center has more than fifty professors and employees.

Sheffi is an expert in the analysis of transportation networks, system optimization logistics, supply-chain performance, and electronic trade, subjects that he teaches and researches at MIT. Under his direction, the Center has launched new education and research programs. In 1997, Sheffi introduced a new Master's Program in Logistics and Performance for the supply chain.

In addition to his work at the University, Sheffi is the researcher that advised manufacturing, retail, and transportation companies. He has also developed himself as an entrepreneur with the LogiCorp Foundation, the first logistics provider in 1988 that was not backed by U.S. securities. Ten years later he founded e-Chemicals, an electronic-commerce company for the supply chain based on Internet.

Then in 1999, he founded Synkra a company dedicated to software development for the retail industry as well as the CPFR standard and, a year later, created Logistics.com an ASP decision-support systems provider for the logistics and transportation industry.

Sheffi's work has not been limited to North America, though, and in 2003 instituted the international logistics program at MIT-Zaragoza, in cooperation with the Government of Aragon in Spain and the University of Zaragoza, which evolved into the creation of the Zaragoza Logistics Center, which is the largest center in Europe dedicated to intermodal transportation. Similarly, last year he initiated, in Bogota, Colombia, the creation of the MIT Latin American Logistics Innovations Center (CLLI) in alliance with the company Logyca Colombia. The idea is to set up an entrepreneurial laboratory or the development of educational programs wherein research in logistics and value networks in Latin America are conducted.

He has also held conversations with the Universidad de los Andes, the Tecnológico de Monterrey, and the Universidad Austral de Argentina to consolidate educational programs with the MIT model.

The INCAE Business Review interviewed Yossi Sheffi on the importance of logistics in the current economy as well as the main trends and technologies that are being developed within Latin America and around the globe.

### ***How do you define logistics?***

Logistics includes all of the activities associated with mobilization and warehousing of items. This includes mobilization and warehousing of suppliers of OEM (Original Equipment Manufacturers, which are companies or persons that obtain devices at wholesale for the assembly of personal computers or equipment) as well as OEM for consumers.

### ***Which are the new technologies that influence logistics?***

It is evident that information technology, Internet, and the multiple applications that have been developed for personal computers have played a significant role in promoting the practice of logistics.

### ***Which is the most important topic related to regulation?***

This, for sure, is a question which we are putting some thought to right now, and it is that the world is entering a recession. Many countries are raising tariffs and making it difficult to move elements across borders. Some of these hardships have become explicit in terms of tax collection and some are implicitly made as are the hardships faced by paperwork and the longer time periods for crossing borders. Some of these barriers are "justified" on terms of security, dedicating more time for cargo inspections. The World Trade Organization (WTO) is very wo-

ried that we are drifting away from achieving the free circulation of merchandise around the world. If globalization is slowed down, the standard of living around the globe will drop.

***What meaning does the supply chain have within a global economy?***

The supply chain is the set of intervening factors in the mobilization of material from suppliers to customers. This includes all of the supplier ecosystem, the mobilization of material around the world through different phases of transformation; moved by transportation companies with the aid of software, subject to all types of regulations and displacement around the world up to the OEMs. Then, these are transferred to the distributors and then to customers, including mobilization that goes from customers to recycling.

All of this is included in the performance of the supply chain and, simultaneously, we should make sure that we carry out these processes in a respectful manner with regard to the environment, as low cost and at a high level of service.

***How are free trade and logistics related?***

Free trade is not only a question of logistics, free trade is, of course, a standard of living. This goes back to the basic principles of economy where the different regions of the world are specialized in doing different things. If we do not allow them to specialize, because each region has to produce everything, then these will be less productive and less efficient. The logistics system allows the different regions of the world to specialize since this allows for the circulation of things from one region to another.

***What is your opinion of 3PL logistics?***

Of course these have an important role to play since, besides providing mobilization and transpor-

tation services, these also provide a higher performance in processes and improvement in services.

Those that achieve being outstanding in this field are specialists in the improvement of business processes, specifically for logistics and performance functions in the supply chain. These companies have significantly grown over the last twenty years and some of them are providing value-added services beyond standard logistics services, including factoring money into credits for security operations, and, in many cases, as in Southeast Asia, for the search of suppliers and execution of contracts for the OEMs. Then, retailers may keep their minds on maintaining what they do best.

***Which countries are the most advanced in logistics?***

This topic began in the United States, Europe, Southeast Asia, and Japan but the topic is not centered in those countries, but in sectors. There are companies within each country that do it well and companies that do not do it so well. This includes Latin America where there are companies such as Cemex that are very good with logistics, the supply chain, and execution. In Japan, Toyota is very good, but there are other companies that do not achieve much productivity. Consequently, it is not the country that is responsible but it is the company.

***How can logistics be developed in Latin America?***

What Latin America needs, in the first place, is physical infrastructure: better railway services, better overland transportation services, and better roadways. But, a large part is improvement on administrative services. Not so much in companies but in governments. In order to improve logistics services, an investment in human talent is required through education. The profession should have a large number of persons that are familiarized with



Yossi Sheffi trabaja desde hace años en la expansión de un red de logística en Europa y América Latina.

the more advanced processes. Of course improvement is required in finances and accounting in order to have more profitable companies through the improvement of supply-chain processes.

### ***How should a culture of flexibility be built?***

That is a difficult question. A culture of flexibility is built when the lower levels within the organization are allowed to act on their own. This is also achieved through the building of communication network as well as through the continual exposure to situations that require quick decisions. Once more, this is something that is not specific to an

area. There are some very flexible companies in Latin America, that are very agile and move quickly. ON the other hand, this can be seen within the United States such as General Motors (GM) which is very flexible and, consequently, is paying the price. The building of any culture is a long process that implies leadership and changes in the incentives.

### ***Should production be personalized according to the demand?***

The building of supply chains that respond to demand involve the development of information-technology tools that can anticipate the demand. This deals with operations of cooperation with customers that may have deeper foresight or better handle the demand.

Additionally, the supply chain should be structured so that the decision on personalization may be made later on within the supply chain. The example here is Dell computers which are built on demand. However, Hewlett-Packard (HP) and many other companies also build their products on demand.

### ***What is your opinion of the new technologies?***

One of these is RFID, which is simply a substitute for the bar code, and, in some cases, may simplify work. Nonetheless, under current costs, I still do not see this for mass use. What this could collaborate with is with work simplification when multiple readings are implied such as containers or platforms in a warehouse, or for items directed at customers and then they return. For all of these elements that have to be identified several times to know where these are and how many there are, RFID may be very useful. Nevertheless, at this point in time I do not see this having great impact upon cost reduction.

### ***How has the MIT Global Network worked?***

The Global Network of the Massachusetts Institute of technology (MIT) is in its infancy. We have added the Center in Bogota and other universities are being dealt with, of course INCAE is one of these. Up until now, it is going very well but we are still at the onset, which makes it difficult to clarify.

It is clear that many universities and companies are enthusiastic because of the Global Network but this is a question that should be posed in five years and I will tell you if it is successful or not. It will be successful if a network is created within Latin America, with professionals, universities, academia, companies, and all of the people that work together on improving processes and knowledge in logistics and performance of the supply chain. We attained this goal in Zaragoza, Spain.

### ***How can Latin America compete with China?***

It is very obvious that timeframes for transportation from China are very long, so the question is: are there opportunities for companies in Latin America? The answer is affirmative, but the companies within the region have to make sure that manufacturing costs cannot be much higher. These may be higher than the costs in China because manual labor in these countries is dearer, but the Chinese not only have advantages on this topic but that they are also much more developed productivity and, currently, they are investing more and more in innovation. This is the first aspect which should worry Latin America because they are not progressing toward the Asian giant. Although Latin America has advantage with regards to the North American market, but this is not enough. These countries have to make sure that the quality, innovation, and productivity are there.