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Comments from the Editors

As this publication is driven by your submissions, sometimes we have a themed focus for AIB Insights, sometimes the issue is composed of interesting and eclectic articles. This issue is eclectic. We encourage you to submit an article or send a query on topics you may wish to write about that may be of interest to colleagues in the Academy of International Business.

In the first article, Zhang Ruimin, founder and CEO of Haier Group, reflects on “Business Model Innovations of the Internet Era.” Why this topic? Because Mr. Zhang believes the Internet age is a big challenge for all companies. Those who fail to innovate with respect to the Internet will be left behind. Mr. Zhang has also been supportive of working with academics discussing innovation and management, something we do not always find amongst business executives. We would like to extend our gratitude to and acknowledge the contribution of James Jarman of FTI Consulting, who solicited, organized, and arranged the article by Zhan Ruimin. Without James’ help and efforts, this insightful article would not have found its way to AIB Insights.

In the second article titled “A Changing Industry: Academic Business Education in Israel” Tamar Almor and Diana Bank discuss the emergence of Israel as an important global center of innovation and entrepreneurship, of knowledge-intensive industries, and private and public venture capital (both Israeli and international) leading to reciprocal development and flourishing of industry and service sectors and tertiary education.

In the third article, Cristina Chaminade and Roberta Rabellotti analyze the recent proliferation of “Technology-Driven FDI by Emerging Market Multinationals in Europe”. The article highlights the results of a three-year research project (2011–2014) that aimed at a better understanding of the dynamics and consequences of FDI and Technology FDI by Emerging Market MNEs in Europe, with a particular focus on investments from India and China. The article discussed the recent rise of these investments, the impact of these investments and the policy implications of these investments for Europe.
**Reflections on Managing a Multinational Corporation in China: Business Model Innovations of the Internet Era**

Zhang Ruimin, Haier Group, China

**Haier was founded in 1984.** In the last 30 years, through its entrepreneurial and innovative spirit, Haier has transformed itself from an insolvent collectively-owned factory on the brink of bankruptcy into the number one global home appliance brand. In 2014, Haier Group’s global revenues reached US$32.6 billion, while estimated profits grew three times faster than revenues — at 39 percent year-on-year — to US$2.4 billion. Based on the statistics of Euromonitor International, a world leader in strategy research for consumer markets, Haier has been the number one global home appliance brand for six years in a row. In the 2012 World’s 50 Most Innovative Companies list published by the Boston Consulting Group, Haier was the only Chinese company in the top 10, as well as the top-ranked consumer product retailer.

My topic for this reflection article is “business model innovations of the Internet era.” Why this topic? Because I think the Internet age is a big challenge for all companies. If we failed to innovate in the Internet era, we would be left behind by this era.

I want to make three points. First, I will describe how successful companies move with the changing times. To survive, all companies must keep up with the times. Because things change too quickly, we must never stop challenging and conquering ourselves. Second, I will talk about what innovation efforts Haier has undertaken in the Internet era. Third, I will discuss a problem we haven’t found a good solution to until this day. This is a very risky challenge to take on: it can help you reinvent yourself; but if not handled well, it might overturn you. I don’t know how far our company has gone. Even though I’m very confident, this era is indeed very difficult to grasp.

**Successful Companies Move with the Changing Times**

A so-called successful company is one that has managed to stay in tune with the changing times. However, it is impossible to always keep in tune with the times because we are only human and not god. A company is like a surfer. Being able to rise to the top of a wave today does not guarantee that you will still stay on top of it tomorrow. For instance, in the cell phone industry, Motorola used to be number one. But it was soon surpassed by Nokia. The reason lies in the changing times. Motorola ruled the analog era, but Nokia seized the opportunity of the digital era. However, Nokia was soon surpassed by Apple as Apple was able to seize the opportunity of the Internet era. If you fail to move with the changing times, you will be phased out very quickly. This is especially true in the Internet era. I have a feeling that this age will bring about a total disruption.

The 200-year-old traditional management models are being smashed into pieces in the Internet era because their foundation is Adam Smith’s division of labor theory, which explains how small workshops are transformed into modern corporations. This theory is also the root of theories by three pioneers of classical management thinkers: (1) Frederick Taylor’s scientific management, which is the foundation of the assembly line, (2) the father of organization theory, Max Weber’s, idea of bureaucracy, which still has currency today, (3) Henri Fayol’s general management theory, which, in essence, is about applying various functions within a business to adapt to its external market.

With the arrival of the Internet era, I think all these theories have been overturned. Reason number one: zero distance. A business needs to be at zero distance to its customers. Therefore, production lines must be reformed to enable the transition from mass manufacturing to mass customization. Second, decentralization. In the Internet era, anyone can become a center, so there are really no centers nor leaders. Therefore, bureaucracy must be changed. Third, distributive management: I have access to resources from around the world. The entire world is my human resources department. As you can see, those general management theories are no longer relevant today. We are witnessing gigantic changes.

Greek philosopher Heraclitus said, “No man ever steps in the same river twice.” This is because the river flows too quickly. The current era is like the incessant currents of a river. This is an important reason why Haier must change.

**Haier’s Trial and Error in Business Model Innovation**

When Professor Meyer came to Haier 10 years ago and learned about the changes I was planning to implement, he said: if you managed to change this way, you would become an excellent global company, but I don’t think you could, because of the sheer magnitude of the disruption it would cause. This is exactly why we haven’t managed to change the way we wanted after so many years. Due to time constraints, I will address only three highlights in our ongoing experiments: (1) strategic shift, (2) organizational shift, (3) change in our remuneration system.
Strategy: Shifting to a Customer-Centric Win-Win Model of “Individual-Goal Combination”

Companies used to be company-centric in the past. But in the Internet era, things have changed and we must put customers at the center. To adapt to the customer-centric reality, we adopted a strategy that we call "the win-win model of individual-goal combination." "Individual" refers to the employee; "goal" refers to customer resources. The strategy is about connecting each employee with their customer resources. "Win-win" refers to the fact that you prove your value by creating value for customers. What is so difficult about this multi-year effort to implement this strategy? The difficulty lies in how employees find their customers. Management guru Peter Drucker said that all companies must ask themselves a couple of questions, the first of which is: who is your customer? The second question is: what is the value that you create for your customer? As one can well imagine, it is very hard to make each and every one of your employees find their own customers. We've been working at this for a long time.

We've overturned our old pyramid-shaped organizational structure, where employees at the bottom had many leaders above them and were unable to make their independent decisions. Now that they are liberated, they can find their customers and start an enterprise as long as they have their own ideas. Thus, employees at the bottom can go solo and start their own business.

For example, we have three young people in their twenties who discovered an opportunity in the gaming laptop segment. Many gaming laptop users are technology aficionados and have their own ideas about how gaming laptops should be built. These three young people found about 30,000 such ideas online and categorized them into 13 types of problems. To address these problems, they invented a new gaming laptop. All other resources are available in the wider business community: design, R&D, manufacturing. As long as you have your customers, you can have other people make things for you. This gaming laptop, which is named ThundeRobot, is a product of resources integration from the wider business community. It started from scratch and is now among the best in its category.

What is it that empowered these three young people? First, the power to decide. Second, the power to hire. Third, the power to distribute remuneration. With these three powers, they managed to succeed. Some venture capitalists are investing in their project. We would like to see it become an entirely independent operation. Many other employees have started their own companies. We regularly hold Maker Fairs, an occasion for venture capitalists in the wider business community to evaluate new projects. This is how we are breaking down old organizational structure. Our philosophy is: “I create my customers and share the extra value that I create.” When employees find their own customers and create value for them, they can share part of the value they created.

We believe that “the company is the people; the people are the company.” Every entrepreneur can start their own business. This is a far cry from traditional management theory. In traditional management theory, there are three essential factors: the subject of management, the object of management, and the means of management. The subject of management is the manager. The object of management is the managed. The means of management is the models and tools used by the manager to manage the managed. This is a closed system. Now I’m turning it into an open system where everyone can start their own business and thereby overturning the old organization.

Organization: Shifting to a Community of Interest That Maximizes Benefit for All Stakeholders

The organizational structure used to be connected in series; now it is connected in parallel. Why this change? Business historian Alfred Chandler said it brilliantly: the growth of a business depends on two variables, strategy and organization. He also advanced the "structure follows strategy" thesis. Strategy follows and is designed for the changing era. The organization changes with the changing strategy. Now that our strategy has changed, the organization needs to change. In the past, the organization is connected in series: from planning, design, marketing, finally to the user. There are many gears between planning and the user. These gears do not know where the user is. They are the intermediaries within the company. There are also intermediaries in the wider business community. For example, suppliers and distributors are intermediaries that the company needs to deal with. Anyway, the company is far away from the user. Now we need to bind the company and the user together. Other resources also need to change so that they can best satisfy customer demand. Together they form a community of interest.

The first characteristic of this community of interest is that resources can enter it without any barrier. When you enter it, you must be able to
create user resources. Second, all partners in this community should be able to get maximized benefit. In the past, the company and its suppliers used to engage in a tug-of-war: I would use whoever offers the least expensive materials. But now, I will use whoever can participate in the initial design process. For example, steelmakers can participate in the initial design process by offering expertise on what kind of steel is best for my product— I have expertise on the product itself but they can offer better solutions when it comes to choosing the right kind of steel. This process maximizes benefit for all. There is a brilliant saying: “Whatever cause it is, if not all participants are benefited, it will not succeed.” Even if it did succeed, it would not last long. We have now turned the tug-of-war into a cooperative relationship. This is not a static relationship as whoever does a good job can join us.

We have a notion: to eliminate the external middleman and the internal “insulated walls.” The middleman is useless. The insulated walls are the middle managers. Charles Handy said that the middle managers are cooked geese. They have no sensitivity and are unable to communicate the reality of the market. That’s why we downsized by 16,000 people last year. At the beginning of last year, Haier had an 86,000-strong workforce. By year-end, we had 70,000, an 18% cut. This year we expect to further downsize by 10,000 people. These will be primarily middle managers as well as jobs rendered unnecessary by automation.

Remuneration: Linking Pay to an Individual’s Value Creation in a “People-Goal-Pay Combination”

When both strategy and organization have been reformed, whether you can continue to improve depends on remuneration. How does everyone get paid? In the past, we used the broadbanding system that is popular worldwide. A large global company customized this system for us. But even after the customization, we feel that it has a big problem: in the broadbanding system, everyone gets their pay based on their job or position. In other words, the calculation of pay is based on job and work time. Now we are using a two-dimensional dot chart. The horizontal axis represents the company’s value, which are the conventional indicators such as revenue, profit, market share, and so forth. What’s important is the vertical axis, which is based on Metcalfe’s law about the network value. What is the definition of the network value? The network value is proportional to the size of the network squared.

What is the size of a network? There are primarily two variables: (1) the nodes in the network and (2) the users connected to the network. That’s why we are turning every employee in the company into a node in the network. As a node, you need to connect with users in the market. Whoever gets connected with more users can make bigger achievements. In a sense, even if you generate revenue and profit, but are not connected to users, your revenue and profit are not valid. This is a qualitative change. Everyone must be connected with users in the market.

More importantly, I believe the conventional 360-degree evaluation system widely in use by many multinationals where employees are evaluated by their superiors, subordinates, and peers are totally useless here in China. Why? Because in China, we have guanxi. For example, if you tell a co-worker: “I will give you a very good evaluation,” then that person will most likely do the same for you. In this way, co-workers collude with each other, rendering the 360-degree useless. We have changed that and now we depend on direct evaluation by users.

We used to have a big, dedicated team that organized 360-degree evaluations. But I felt that was twice the effort for half the result. Now we have users evaluate us. When they say we’re good, we are truly good. For example, we promised to give away a product for free if it is not delivered on time. If it is supposed to be at your doorstep by 7 pm but arrives after 7 pm, it is yours for free. Why pays for it then? Whoever is responsible for the late delivery. Thus, we got the ball rolling. Last year, we delivered more than 780,000 orders. Only 58 orders were given away for free— less than one in 10,000. This system is up and running. Now we are pushing this further: if users click the “like” button on you, you will get a bonus; if they make a complaint about you, you will get criticized.

What are our next steps after strategy, organization, and remuneration? We have three goals: to build a platform-based enterprise, to develop entrepreneurial maker employees, to provide customized user experience.

Building a Platform-Based Enterprise

What was a company all about in the past? It was all about managing and controlling. Today, the company should become a platform. There are many definitions for the idea of platform. The one that I agree with is that a platform is a framework for fast resource mobilization. When a variety of resources join a platform, it becomes an open ecosystem with its own cycle. To build a platform-based enterprise, we are in fact changing an isolated business into an open ecosystem where you can integrate resources globally to achieve your goal.

Developing Entrepreneurial Maker Employees

This is a shift from a passive implementer to a self-motivated entrepreneur. This is also a far cry from the past.

Providing Customized User Experience

In the mobile Internet era, customers are not going shopping; they are shopping all the time. They don’t have to go to a shopping mall; they can shop anywhere they want. What’s more, an individual customer has now become an individual “center” that publishes their shopping experience in real-time to the entire world. That’s why you must be customer-centric. To provide customized user experience is to satisfy the individual needs of each customer.

Lastly, from a philosophical viewpoint, as Immanuel Kant said, people are the ends, not the means to an end. What a brilliant observation. Whoever he or she is, whenever it is, all people, including yourself, must
not treat all people, including yourself, as means—because people are ends in themselves. On an assembly line, people are treated as means. Now we must treat people as ends.

**Paradoxes in the Innovation Process**

Kevin Kelly, a founding editor of *Wired* magazine, gave us a talk at Haier recently, and I had a discussion with him. He said that in the Internet era, traditional companies are at the peak of hills and they must abandon their old ways, nosedive to the valley, and then climb up the new peak that is the Internet. But I think this is very difficult, if not impossible, to do. Why? Let’s take Haier as an example. If we took a nosedive to the bottom of a valley from where we are now with about 30 billion in revenue, we wouldn’t even be able to pay our workers. I cannot afford to wipe out the entire company and start from scratch again. Without going to such length, if I instead just do quick fixes here and there and try to keep the status quo, I wouldn’t be able to reach the peak of the Internet. That’s why we are now both breaking and building. As we break things, we are also building things so that the structure of the entire company will finally change.

We are hoping to become an ecosystem, as I discussed just before. If I compare each entrepreneurial employee to a tree, many trees form a forest. In this forest, some trees thrive today, some others die tomorrow. In general, the forest is ever-growing. When I was conversing with Provost Price of the University of Pennsylvania, we talked about the differences between Chinese and American companies. I think the biggest difference is that the U.S. has an environment conducive for entrepreneurship whereas China’s entrepreneurship environment is problematic. Even in the American environment, some companies survive and some die. I’m hoping that our company will eventually become an ecosystem providing such an environment.

To conclude, I’d like to quote *The Book of Changes*, a 3100-year-old Chinese book: “Overturning obstruction, instead of being overturned by obstruction. Overturning obstruction: first there is obstruction, afterward joy.” Obstruction means being closed and isolated. Overturning obstruction means changing the status of self-isolation and becoming open. Not being overturned by obstruction means to avoid suffocating yourself, as suffocation leads to death. Therefore, the best way is to reinvent yourself. The final result is obstruction first and joy afterwards. At first, the situation is closed and isolated. But with hard work, you will achieve joy and success. I hope all companies in this Internet era will achieve joy after overturning obstruction and succeed in their self-reinvention.

**Zhang Ruimin** is a world renowned entrepreneur, founder of Haier Group, Secretary of the Party Committee of the Haier Group, Chairman of the Board of Directors and CEO. Zhang Ruimin is the alternate member of the 16th, 17th and 18th Central Committees of the Communist Party of China. Details at [http://www.haier.net/en/about_haier/ceo/introduction/](http://www.haier.net/en/about_haier/ceo/introduction/)
A Changing Industry: Academic Business Education in Israel

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By early 2013, Israel’s population was close to the eight million mark. The country, which is based on a market economy, with an estimated Gross Domestic Product (GDP) per capita (PPP) of about $32,000, is considered the only democratic country in the Middle East. During the last decades, Israel has emerged as an important global center of innovation and entrepreneurship. Knowledge-intensive industries, as well as private and public venture capital (both Israeli and international), have allowed for industry and service sectors to flourish, including that of tertiary education.

Even though Israel as a nation has only existed since 1948, various tertiary education institutions were already established as early as the 1920s in the land that constituted the British Mandate of Palestine. In 1924, the Technion Israel Institute of Technology was established in the Northern city of Haifa and the Hebrew University in Jerusalem followed in 1925. Soon thereafter, others were founded: The Weizmann Institute of Science in 1934; Bar Ilan University in 1955; Tel Aviv University in 1956; the University of Haifa in 1963; Ben Gurion University of the Negev in 1969; and The Open University in 1976. In 1990-91, these eight universities provided higher education for about 81,000 students and remain the most important educational institutes in Israel, with a very good international reputation. According to QS World University Rankings (2012), four of these eight universities were ranked among the 500 best universities in the world (Hebrew University at 140, Tel Aviv University at 209, the Technion at 220, Ben Gurion University of the Negev at 377, while Weizmann Institute of Science is not ranked, it is an internationally renowned research institution).

In the 1990s, various far-reaching changes took place in Israeli society. In the beginning of the 1990s, around one million Eastern European Jews, mainly from the former Soviet Union, started arriving in Israel, seeking new opportunities and options to build a better, more prosperous life for themselves and their children. In response to this large influx of highly educated immigrants (especially in technology, science and related fields) for which job opportunities needed to be provided, Israel’s government created an environment that would be conducive of entrepreneurship. It established dozens of incubators, enabling entrepreneurs to start out in a protected environment. At the same time, the government stimulated the establishment of a venture capital industry to encourage financial investments in the budding start-ups. It also set aside a significant budget for the Chief Scientist Office, which in turn allocated (and continues to do so presently) funds to subsidize the development of applications of new technologies. In parallel, throughout the past two decades, Israel has seen hundreds of entrepreneurial firms being listed on the American NASDAQ stock exchange, which specializes in high tech companies, and after China, has the highest number of foreign companies traded on NASDAQ, as well as on other foreign stock exchanges (Almor, 2011; Avnimelech & Teubal, 2006; Senor & Singer, 2008).

In addition, education and especially tertiary education underwent a process of expansion and democratization. Until the late 1980s, academic education was considered mostly a prerogative of the “elite.” Immigrants, people from the periphery of Israel and minorities were not easily accepted into academia.

A Period of Growth: A Proliferation of Academic Colleges

At the end of the 1980s, the universities in Israel were not able to absorb all prospective students. Immigrants from the former Soviet Union as well as Israeli-born high school graduates demanded an academic education. As the existing universities did not increase their acceptance rates, many young people sought academic education outside Israel. This change in demand created two types of academic entrepreneurs: those that helped young people to look abroad and those that sought ways to supply the demand for academic education outside the hegemony of the existing universities.

One of the first to change the existing industry structure was the College of Management. This organization was established by a small group of people, who recognized the need for higher education for a broad group of young people, especially in the field of Business Administration, which was not offered as an undergraduate degree by Israel’s existing universities. The College of Management was one of the first to break the hegemony on higher education held by the universities and established a new type of academic institution, one that, while overseen by the Council of Higher Education (CHE), is not funded by government (Clark, 2005). Change in policy of the CHE regarding the ability to grant an academic degree outside the existing industry struc-
During the academic year 2010-11, about 250,000 students participated in higher education (excluding the Open University), of which about 183,000 studied for their first degree.

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The academic colleges have created social change and enabled hundreds of thousands of young people to receive an academic education, especially those who would not have been able to do so previously. Nevertheless, as birth rates and immigration numbers have started to decline and the number of academic institutions is still increasing, competition between the academic institutions is growing. Therefore, we expect to see a number of changes in the coming years in the academic education industry and in the business schools specifically.

Maturation of the Academic Education Industry: How Business Schools Will Change

As growth is leveling off and academic institutions find it increasingly difficult to attract enough students in order to continue growing, especially in colleges where studies are not funded by government (i.e., the student pays full rather than partial tuition), business schools are looking for additional sources of income and growth. Like in many other industries that mature, the generic options seem to be: (1) internationalization, (2) a focus on niches that were previously neglected, and/or (3) a re-examination of the value proposition presented by academia in Israel.

Internationalization of Business Studies: Jewish Diaspora Outreach

Israeli academia has started to look abroad in trying to attract international students (even though a few universities established international business programs already a decade ago, most business studies in Israel are still conducted in Hebrew). The most logical (and probably easiest) place to look is within the Jewish diaspora, mainly from English-speaking countries such as the USA, Canada, Australia, and South Africa, but also European countries where the European Jews have excellent English skills (Russia, France, and Germany have the biggest number of Jewish populations in Europe).

Many academics have studied diaspora movements (Brubaker, 2005; Shain & Barth, 2003) and describe a diaspora as a people with a common origin who reside, more or less on a permanent basis, outside the borders of their ethnic or religious homeland, whether that homeland is real or symbolic, independent or under foreign control. As the central part of their identity and their cause, diasporas retain a collective memory and a longing for an ancestral homeland. Although the modern State of Israel is today a full-fledged member of the international community, located in the same territories Jews lived thousands of years ago, having a “Jewish state” had been a dream and a hope of Jews for many centuries. Diaspora members identify themselves, or are identified by others – inside and outside their homeland – as part of the homeland’s national community, and as such are often called upon to participate, or are entangled, in homeland-related affairs. The Jewish diaspora is in constant touch and identifies strongly with the State of Israel and as such, many Jews spend some time in Israel, either as part of an exchange at school or university; to partake in the Israeli Defense Forces (IDF); or for religious reasons, i.e., it is expected of many young men to spend a year in a religious school or yeshivah before or after a bachelor’s degree. Diaspora Jews tend to be Zionist in their beliefs that Israel should exist out of religious, national,
or simply reasons of existence as a place to turn to in case of need or for emotional reasons. Hence, this market should be very easy to target, as it is from the outset a captive audience.

In 1997, Bar Ilan University was the first institution to have an international MBA taught entirely in English, as it saw a niche market in the American students who would come to Israel temporarily. It targets mainly those who would go to Israel for a year to a religious school or yeshivah to continue their religious education; being the only religious university in Israel, Bar Ilan University is the most logical choice for these students. Tel Aviv University’s Graduate School of Business Administration soon followed and started a joint executive MBA with Northwestern University’s Kellogg School of Management also taught entirely in English. However, these programs were established for reasons other than a glut in the market, such as expanding the enrollment of students, or as a “pull” force, a demand from these students who had some free time to fill in.

Among the colleges, which are more susceptible to fluctuations in number of students, the Interdisciplinary Center (IDC) in Herzliya has established the Raphael Recanati International School (RRIS) which allows students from around the world to study for an undergraduate degree in English with a focus on business administration studies. The Business School of the College of Management–Academic Studies is in the process of establishing a joint degree program with one of the larger business schools in the United States. The Technion in Haifa will be offering a one year MBA in English with an emphasis on high tech entrepreneurship. However, so far very few academic institutions in Israel offer extensive international business studies. It can be expected that more colleges and universities will become increasingly internationally focused as growth in student numbers is leveling off.

**Focusing on Niches**

The last few years it has become apparent that certain segments of Israel’s society participate less in the democratization process of higher education than others. Most salient are the Ultra-Orthodox Jews, who represent between five to ten percent of the total Israeli population, but who are growing at a six percent rate a year and the Israeli Arabs, who are expected to comprise around 25 percent of the population of Israel by 2025 and who acquire academic education at a much lower percentage than the rest of the population, mainly due to cultural and language reasons. Recently, some colleges have started to focus on either of the two segments. The Ono Academic College, for instance, has established a separate campus for Ultra-Orthodox Jews, where studies in business administration and law are offered on a gender segregated basis. Other colleges have either established or are in the process of establishing separate campuses for this segment of the population as well. As a group, many lack matriculation exams and need preparatory training before they can start with their academic studies. Moreover, many refuse to study with secular Jews or people who do not behave according to their codes of conduct, therefore requiring separate campuses. Other colleges have started to attract the Israeli Arab population. This requires adaptations as many Israeli Arabs live in the North and the South of Israel, far away from most academic institutions. Many of Israel’s Arab students are in need of scholarships and housing, something which most colleges offer in a limited form. While males may live away from home, women are frequently not allowed to do so. In addition, Hebrew is for most a second language and English a third, thus, creating difficulties for those who do not speak Hebrew fluently as studies in Israeli academia are conducted in Hebrew. While some colleges conduct their studies in the Arabic language, most do not and thus will have to find other ways to enable and support this segment to acquire academic education.

**Re-Examination of the Value Proposition**

In the past, when relatively few people were able to receive an academic education, the correlation between life-long income and higher education was very strong in Israel. However, in the last few years, this correlation is leveling off and many feel that an academic education is similar nowadays to a matriculation exam some twenty years ago. At the same time, many large employers such as banks, insurance companies, and large manufacturers complain that many of the academic graduates are hired without the appropriate set of skills. Thus, it seems that two important stakeholders, the students on one hand and the employers on the other, are disappointed with academia. Apparently, this process is not unique to Israel. A report published recently by the McKinsey Center for Government (Mourshed, Farell and Barton, 2013) shows that while young people today are three times as likely to be out of a job compared to their parents, many employers cannot find people with the right skills for entry level jobs. In the report, which is based on a survey of nine diverse countries, the authors conclude that academia and industry need to cooperate more closely in order to create graduates that have the skills to find professional work. Some business schools, such as the College of Management, have started to change their curriculum and the auxiliary services and have started to cooperate intensively with industry in order to offer opportunities to their students during their studies to prepare themselves better for future professional employment.

**Conclusion**

Israel’s higher educational system has been in the making since before the State of Israel was born in 1949. In line with the creativity and entrepreneurship that have characterized businesses in Israel, higher education has also flourished with the burgeoning of many colleges. Nonetheless, growth in the academic education industry is leveling off and expectations of higher education seem to be changing. As a result business schools are looking beyond their borders resulting in the gradual offering of degrees in English and new programs in conjunction with universities abroad. In parallel, business schools are also
targeting segments of the society it had not considered before, such as the Ultra-Orthodox and the Arab populations. However, most exciting in our view is the change that will take place in the value-proposition offered by business schools in Israel, as important stakeholders are starting to demand studies that offer a well-defined toolkit and skills needed to succeed in the workplace of the 21st century.

References


Endnotes


Tamar Almor has a PhD in international strategy from Tel Aviv University in Israel. At present, she serves as Dean of Students after having held the post of Head of the Department of Strategy and Entrepreneurship at the College of Management, Israel. Her major research interests focus on strategies developed by international new ventures and on international entrepreneurship, and she has published widely in these areas. Currently she serves on a number of editorial boards.

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Technology-Driven FDI by Emerging Multinationals in Europe

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Since the turn of the century, we have witnessed unprecedented international growth of foreign direct investments (FDI) by emerging economy multinational enterprises (EMNEs). In 2013, FDI from developing and transition economies reached the record level of $460 billion, corresponding to 39 percent of global outflows, up from 16 percent in 2007 before the financial crisis (UNCTAD, 2014). This shift in the origin of FDI has occurred in parallel with a rise in the proportion of technology-driven FDI (TFDI) from emerging countries particularly aimed at augmenting their technological capabilities through mergers, acquisitions, and greenfield investments abroad. Europe is one of the most important recipients of technology-driven investments from EMNEs. Both the change in the origin as well as in the nature of FDI poses some challenges to the international business community. Some of the critical questions to tackle are:

- Do these investments imply a loss of technological competitive edge in the European firms when they are acquired by EMNEs? Do we observe systematic asset stripping strategies? Or, on the contrary, such investments can create mutual benefits both for the investors and for the economies and the firms they invest in?

- Do international investment agreements and national policies influence the impact of EMNEs investments? Can trade authorities minimize the negative impact and strengthen the positive consequences of such investments? What can be learned from the empirical evidence so far?

This short article highlights the results of a three-year research project (2011–2014) aimed at understanding the dynamics and consequences of FDI and TFDI by EMNEs in Europe, with a particular focus on investments from India and China. TFDI are defined as foreign direct investments undertaken predominantly with the aim of accessing and/or learning to master technologies that the investing company does not have access to before and/or of generating new knowledge.

The results are grounded on a database built within the project (Emerging Multinationals Events and Networks DATABASE; EMENDATA), which contains all the investment deals — greenfield investments, mergers & acquisitions, and minority investments — by emerging market multinationals (low- and middle-income countries) in the EU-27 between 2003 and 2011. The analysis of the database has been complemented with in-depth interviews in firms with TFDI in Europe, as well as with interviews to policy makers. The main findings are summarized below.

### Characteristics of the Investments

When we consider all the investment by emerging economies in Europe, China, and India are clearly the most important investors, closely followed by Russia (Figure 1). Approximately 29 percent of all inward investments from emerging countries into Europe come from India and around 21 percent from China. Their investments are strategically targeted to certain countries and sectors. In terms of countries of destination, UK is the most important destination, followed by Germany and at some distance by France, Spain, and The Netherlands. In terms of industries, Chinese firms mainly invest in manufacturing sectors like electronics, industrial machinery, communication, and the automotive industry, while Indian MNEs invest in service industries and in the pharmaceutical sector.

### Figure 1 - Emerging countries FDI to Europe by entry mode (2003-2001) (# deals)

<table>
<thead>
<tr>
<th>Country</th>
<th>Greenfield</th>
<th>M&amp;A</th>
<th>Minority Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>225</td>
<td>84</td>
<td>117</td>
</tr>
<tr>
<td>India</td>
<td>949</td>
<td>44</td>
<td>153</td>
</tr>
<tr>
<td>Russia</td>
<td>689</td>
<td>690</td>
<td>385</td>
</tr>
<tr>
<td>Turkey</td>
<td>255</td>
<td>294</td>
<td>117</td>
</tr>
<tr>
<td>South Africa</td>
<td>350</td>
<td>243</td>
<td>90</td>
</tr>
<tr>
<td>Brazil</td>
<td>126</td>
<td>102</td>
<td>90</td>
</tr>
<tr>
<td>Malaysia</td>
<td>153</td>
<td>126</td>
<td>32</td>
</tr>
<tr>
<td>Others</td>
<td>117</td>
<td>90</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: EMENDATA

TFDI from EMNEs are mainly directed to existing specialized technological hubs in high-income countries (e.g., investments in the automotive sector go to Stuttgart in Germany and to Turin in Italy and those in renewable energies such as wind choose central Denmark). Our findings show that agglomeration economies play a key role in attracting investments from emerging economies, which tend to concentrate in regions or areas with a massive presence of firms in the same industries (Amighini & Franco, 2013).

While most investments by emerging multinationals in Europe take the form of greenfield (80 percent of Chinese deals and more than 50 percent of those from India) (Figure 1), mergers and acquisitions tend...
to be associated with investments from more innovative companies. This means that EMNEs, especially in technology-intensive industries, acquire other companies in order to access technologically advanced assets not available at home (Amendolagine, Cozza, & Rabellotti, 2014).

When the objective is accessing technological competences rather than a customer base or an established brand name, Chinese and Indian MNEs prefer less control of the acquired companies (Piscitello, Rabellotti, & Scalera, 2014). Indian firms go as far as maintaining the acquired firm as a separate entity to preserve the brand value and penetrate European markets. In one interviewed Indian automotive company, the headquarters decided to maintain the new investment totally independent from the group with R&D centre in Germany and manufacturing plants both in Germany and in India, preserving the well-known German brand and the original customer network. But this is not a unique case. Our findings show similar strategies for investments in clean-tech (windmills) in Denmark and ICT in France. In the case of Chinese acquisitions, the degree of independence of the subsidiary is highly related to the competences of the acquiring firm: when the acquirer has limited technological competences, full autonomy is usually attributed to the subsidiary in the R&D field. Differently, when the Chinese investor has complementary technology competences, the subsidiary R&D activity is closely guided by the headquarters and there is intense collaboration between the acquirer and the acquired firm, as shown in various cases in clean-tech and in the automotive industry (Chaminade, 2015).

**Impact of the Investments**

The vast literature on direct and indirect spill overs has shown that MNEs are in general reluctant to engage in interactive learning with indigenous firms due to their lower absorptive capacity, the lack of differentiation between firms and the goods that they supply, and the fear of losing knowledge (see among others D’Costa, 2006; Dunning & Narula, 2004; Dunning, 1993; Lall & Narula, 2004; Narula & Marin, 2005). However, TFDIs from emerging economies are quite different because they are aimed at acquiring technological capabilities. In this case, it is the host country that owns advanced technological capabilities of interest to the MNEs.

As an increasing number of firms from emerging countries invest in Europe, worries abound over the potential negative impact of such investments on the local economies. Some fear that Chinese, Indian or other EMNEs will simply take over local companies, exploit their technology, and leave without creating lasting benefits for employment and economic growth in Europe. But are these concerns justified, or should FDI from emerging economies be seen in a more positive light?

Based on interviews with the headquarters and subsidiaries of Chinese and Indian multinationals in Europe, we have observed a high diversity in the impact of TFDIs in Europe and no generalized predatory behaviour. More specifically, we have identified five possible impacts on the existing assets: (1) killing, (2) stripping, (3) withering, (4) maintaining, and (5) development. In several cases the investment has had a positive effect on the European subsidiaries in terms of augmenting their technological capabilities (i.e., asset development). For instance, this happens in some Chinese cases, particularly, but not exclusively, in the clean-tech industry. There are two examples of Chinese subsidiaries in which the headquarters have continued supporting investments in R&D and the development of new technological solutions in their subsidiaries in Denmark. An Indian company has acquired a German company in Dortmund, which is a global leader in the field of emission controls, with an R&D lab of more than 150 employees.

The absence of a generalized predatory behaviour is also confirmed by a survey undertaken in Germany and Italy on MNEs from advanced countries and EMNEs investing in the machinery industry, concluding that the latter are more likely to engage in local innovation networks and create win-win situations in terms of mutual learning than the first ones (Giuliani, Gorgoni, Günther, & Rabellotti, 2014).

With a focus on Brazil, India and China, we have also investigated if cross-border collaborations bring about better innovations comparing the value and the characteristics of cross-border and domestic patents (Giuliani, Martinelli, & Rabellotti, 2014). The results suggest that cross-border inventions are more rewarding than domestic ones, as they produce higher value patents in terms of forward citations as well as more general patents. This means that innovations based on international collaborations are likely to influence the development of subsequent inventions across a variety of technological fields. We also find that cross-border inventions have lower market scope compared to domestic patents (i.e., protection applies to a smaller number of countries), which suggests that international collaboration is a strategy adopted by EMNEs not to enter potentially new markets but rather to increase the future impact of their innovative activities.

Our cases also show that the final result in terms of impact is clearly mediated by the time horizon as well as by the management skills. We have found that it may take several years to achieve a positive impact in terms of augmenting technological capabilities and increasing the...
patent portfolio and its quality. A medium- to long-term strategy to maintain operations in Europe is needed as it is clearly acknowledged by a clean-tech Chinese firm interviewed observing that “the development of technology is really a long term process.”

With regard to managerial skills and international experience, our cases suggest that some of the common pitfalls that often compromise the positive impact of investments are the lack of awareness of the cultural differences and of the gap in technical competences between the headquarters and the subsidiary. For example, in one the investigated acquisitions both the subsidiary and the headquarters indicated that the technological gap between their competences was so substantial that the headquarters could not understand neither the potential technologies that the subsidiary was able develop or the importance for the development of cutting-edge technologies of the local networks of suppliers and customers of the acquired firm. As a consequence the acquired firms suffered from a substantial loss of technological capabilities in the years that followed the acquisition shifting down from world leading innovation to intermediate innovation.9

**Policy Implications for Europe**

The European integration project is deeply rooted in the liberal economic approach, which emphasizes the benefits resulting from open and integrated markets, not only for goods and services but also for capital and this is reflected in the EU policy toward foreign investments which is one of the most liberal regimes in the world (Dantas & Meyer, 2014). However, the context in which these regulations were developed has changed, as we have argued earlier. With the rise of FDI flowing from emerging economies to advanced countries, the EU and its member states are suddenly finding themselves in the position of host countries and there are emergent calls for restrictions in clear contrast with the currently open and liberal regime in cases in which security, environmental and social objectives may be compromised.

Our findings suggest that the impact of EMNEs investments can be positive when TFDI are embedded in the host country networks and foster R&D efforts. For policymakers, this requires efforts in the creation of R&D incentives and networking opportunities involving foreign investors and the host actors. This would reduce predatory behaviour and open up opportunities for advanced host country managers and entrepreneurs to learn from new investors, leading to valuable knowledge spillovers to the benefit of local firms in the medium and long term.

With respect to investment policies, policy makers in Europe are no longer able to focus one-sidedly on the interests of investors and outbound FDI. In negotiating international investment agreements, they are required to balance the interests of investors with other policy objectives emerging from various domains, including security, environmental, labour, competition/anti-trust and industrial policy. Some of the emerging challenges for the EU regulations are the investor-state dispute settlements, the investments by organizations with strong government links and the investments in sensitive industries and technologies which may require, in the future, a more selective policy for investments (Dantas & Meyer, 2014).

Finally, our interviews suggest that rather than trade and investment policies, other policies have a stronger influence on the final impact of the investments, notably labour and migration rules as well as IPR regulations. More flexibility in labour rules as well as supportive migration policies – granting work permits to facilitate the short-term mobility of personnel between headquarters and their subsidiaries – were often mentioned by the firms interviewed as cornerstones for the sound functioning of the investments in the short and long term.

**References**


Cristina Chaminade is a full professor in Innovation Studies at Lund University. She holds a doctoral degree in Economics from the Autonomous University of Madrid. Her area of expertise is in globalization of innovation, particularly in global innovation networks and innovation in emerging economies. She has actively worked on innovation in developing countries for over 15 years. She’s been advisor of international organizations such as the European Commission, UNCTAD, OECD and UN-ECLAC. She has published in international journals, refereed books and handbooks in the fields of innovation, development studies and knowledge management.

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**Endnotes**

1. The main data sources of EMENDATA are: fDiMarkets from the Financial Times providing information on greenfield investments, Zephyr from the Bureau van Dijk (BvD) and SDC Platinum from Thomson Reuters both collecting data on Mergers and Acquisitions and other minority investments. EMENDATA provides information at the level of the single deal, of the investing company and of the global ultimate owner (GUO).

2. The research project has been funded by Riksbankens Jubileumfond in the framework of Europe and Global Challenges program. A detailed presentation of the main findings of the research project is available at https://globalisationofinnovation.files.wordpress.com/2015/03/tfdi-by-emerging-multinationals-in-europe.pdf

3. The weight of Europe on Chinese and Indian outward investments corresponds to one third of their global investments.

4. Proxied by the share of intangible assets to total assets of the investor.

5. Piscitello et al (2014) reach this conclusion with content analysis on the motivations of the acquisitions, as they appear on the basis of companies’ public announcements published in Lexis-Nexis.

6. Based on interviews undertaken by Balaji Parthasarathy, Ju Liu, Teis Hansen, Cristina Chaminade and Rajesh Mishra.

7. An overview of the different impacts based on the case studies can be found in Chaminade et al (forthcoming).

8. Cross-border inventions are identified considering all patents, whose inventive teams are composed by Brazilian, Indian and Chinese (BIC) inventors and at least one EU inventor; domestic patents are those whose inventive team is composed only of inventors from the individual BIC countries (e.g. for Chinese collaborations only Chinese inventors).

9. In the questionnaire, world leading innovation is defined as the ability to introduce product and process changes based on world-class R&D that advances the technological frontier and helps to establish new trajectories of technological change. Intermediate innovation is defined as the ability to introduce changes which are mostly adaptations to product and process technologies based on design and engineering activities, rather than systematic R&D.

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Endnotes
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