VALUE ADDITION TO HUMAN RESOURCES THROUGH SHARED EDUCATIONAL ASSETS

Dr. R. B. Shendge1
Principal, Fabtech Technical Campus, College of Engineering & Research, sangola

Sanjay More2
Department of Mecahnical Engineeirng, SVERI COE Pandharpur

ABSTRACT
India and Israel officially setup diplomatic relations in 1992. Since then they have collaborated on a host of development issues like agriculture, space research, information Technology etc. There has also been a large component of people-to-people interaction.
Both nations have a large pool of technically sound man power. Yet, the strengths of their respective technical human resources are not the same. Israel has a certain niche in the technical field, India has another. The idea is to leverage the strengths of both nations and synergize them. This paper proposes institutionalizing Indo-Israeli collaboration in technical areas by opening an IIT in Israel and a Technion University campus in India. Both Indian and Israeli students will graduate together from both these Institutions. This paper discusses the various aspects of such collaboration.

INTRODUCTION

The achievements of IIT graduates are well known globally. IIT (Indian Institutes of Technology) alumni are in senior positions in industry and government across the world. In 2012, it was estimated that IIT graduates controlled budgets of over 885 Billion US Dollars[1]. IITians are thought to have added economic value of around USD 450 billion

[2]. They are also estimated to have created over 20 million new jobs globally[2].

4 out of every 10 IITians (who graduated before 2001) are today in top leadership positions in government, industry, research, NGOs etc [3].

54% of the top Indian companies have at least one IITian in their Board of Directors [4].

Even at an institutional level, the various IITs work with governments (state and national), corporates and NGOs to better the lives of the people. Many of the IITs are at the cutting edge of research, considered to be at the frontiers of science. Five IITs are today among the top 310 universities of the world [5].

IITs have also given to the Indian nation- Chief Ministers of states, many cabinet ministers, writers, movie makers, IAS officers etc.

All in all, the impact of IITs on Indian society (and the world stage) is highly positive and far beyond what was invested.

It is estimated that every one rupee invested in an IIT has had an economic impact of Rs 15 and each IIT graduate created 100 new jobs[3]. This was as per a study done in 2008. A lot has changed since then. Earlier the number of IITs was only five or six. Over the last decade, the number has increased to 23. From two or three thousand seats, the number has now increased to around 11,000. But the competition among students to get into IITs has only intensified.

Every year around 1.1 Million students take the IIT–JEE exam (JEE is short for Joint Entrance Exam) for getting admission into one of the 23 IITs [6]. In terms of difficulty and toughness, it is surpassed only by the prestigious UPSC Civil Services (IAS) exam. But IIT-JEE is technically one of the toughest exams in the world. At the end of the

exam, the best minds of India are selected for training in the best technicaluniversities of the country.

Just like the IITs in India, Israel has the Technion University (TU). TU alumni and faculty are considered among the best in the world. Technion graduates lead 59 of 121 Israeli companies having a combined market capitalization of $28 Billion, listed on NASDAQ [7]. The university has won a 3 Nobel prizes in the science stream. Technion graduates are leaders in start–ups and various corporate ventures. Technion University has a strong foundation in pure sciences research.

There are certain areas which are the strengths of the universities we just discussed. IITs for instance have a very strong applied sciences foundation. In spite of so many positives, no IITian has so far been able to win a Nobel Prize. In spite of having several hundred thousand graduates, very few have entered basic research or any other research based field. So far, the IITs have been unsuccessful in scaling technology such that it can be used by the masses. On the other hand, Israel (as a nation) has been quite successful in building scalable technologies. For instance, the USB flash drive was invented by Dov Moran [8], a Technion University graduate.

Top Israeli universities (like Technion) are centres of innovation and start–ups. But due to the small population and geography of Israel, their potential is not fully utilized. Israel's population is 8.6 million (86 lakhs). If research and technologies created by Israeli universities can be scaled up to a billion people like India, the potential for value addition will be 100 times greater.

Israeli universities, which do basic research, can use the services of Indian universities having top of the line engineers for application.

This paper proposes that a joint collaboration between Indian and Israeli universities should take place.

An IIT-Israel campus can be opened in Israel. Similarly, a Technion-India campus can be opened in India. The IIT-Israel campus can have 1000 students in every academic year. 500 students will belong to India and 500 will be from Israel. There will be a permanent faculty, both Indian and Israeli. The 500 Indian students will be selected through IIT-JEE. Their education will be totally subsidized by the Government of India. The 500 Israeli students will be enrolled by Israelthrough their entrance exams.

Similarly, the Technion-India campus will have 1000 students in every academic year. 500 Indian students will be enrolled through JEE or AIEEE. Their education will be subsidized by the Government of India. The Israeli students will be enrolled through the relevant Israeli entrance exam.

The Israeli Government has to provide at least 500 acres of land for IIT-Israel. Similarly the Government of India will have to provide 500 acres in India for Technion-India campus. To bolster regional development, the Technion-India campus can be setup in a backward or under developed region in India. A total of $300 Million crores by both governments i.e. $150 Million each by India and $150 Million by Israel has to be earmarked in the beginning for setting up the campuses, hiring top line faculty, equipment etc.

The potential advantages of such collaboration are manifold.

(1) Both Indian and Israeli students will get international exposure which will foster understanding and innovation.

(2) Students will be exposed to the best practices from both the nations.

(3) The problems of the Indian masses regarding various aspects will get solved due to new set of minds thinking on it. E.g.: Manufacturing, agriculture, research etc.

(4) Israeli companies and start–ups can get a foothold in the $2.8 Trillion Indian economy. This will greatly facilitate both the Israel and Indian economies.

(5) Indian students will get to participate in the Israeli start–up ecosystem. This will give them confidence and know–how to take up new projects.

(6) People-to-people communication and interaction will increase good will among people of India and Israel.

(7) Most importantly, friendship between India and Israel will be greatly strengthened and ties will deepen.

(8) The huge economy and population of India coupled with varied conditions in the sub-continent will provide scaling opportunities for Israeli solutions to Indian problems. This will provide economy of scalefor any innovation leading to quick implementation.

(9) Israel is an OECD nation; Indian graduates will be exposed to OECD standards which has a reputation for being a global benchmark. On the Other hand, India being a G-20 Nation, A huge market will openfor Israel.

(10) In the interest of the masses, products and innovations resulting out of these universities can be implemented in developing nations of Africa and South America.

CONCLUSION

The cost to run these universities will be miniscule compared to the education budget of the two nations, but the returns will be very high indeed.

The exchange of minds and skill sets that this proposal facilitates will help both the nations in the long run. Therefore, in the interest of students, industry and economies of the two nations, this proposal can be taken up for implementation.

REFERENCES

[1] http://www.rediff.com/money/2008/dec/11iit-every-iit-ian-has- created-100-jobs-survey.htm

[2] http://www.sify.com/finance/iitians-rock-the-world-imagegallery- 1-others-jbvkF4ihaggsi.html

[3] https://timesofindia.indiatimes.com/india/IITians-contribution-to-economy-is-Rs-20-lakh-crore-Study/articleshow/3752658.cms

[4] https://www.quora.com/What-has-been-the-contribution-of-IITians- to-India

[5] https://www.topuniversities.com/university-rankings/world- university-rankings/2018

[6] https://www.ndtv.com/education/jee-advanced-2017-today-1-7- lakh-students-appear-for-iit-berth-1696346

[7] http://t3.trdf.co.il/technion

[8] http://nocamels.com/2013/03/dov-moran-talks-to-nocamels- about-sandisk-comigo-modu/