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Memo

TO: Brett, Myers & Watkins
FROM: Tom Nastas
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PAGES: Four (4) +a Five (5) page attachment
RE: **Action Item # 1: Create Business Formation
Units in TTOs of Middle Income Countries**

Al, Alistair & Gordon:

The University of Michigan and a few others created business formation departments in their TTO, to overcome the barriers that impede more SME creation around university technology, in places like Michigan, Ohio, Pennsylvania, not hotbeds of tech and VC like Silicon Valley. Business formation units work to solve three problems:

1. A lack of comfort with risk, uncertainty and failure since they can = the loss of prestige, reputation, status and \$ for those promoting and investing in technology.
2. Spur more entrepreneurship since serial entrepreneurs organize teams quickly, raise \$ quickly, get to market quickly, evidence that knowledge creation initiatives are working in the community.
3. Attract (or develop), find smart, independent and progressive people with creative ideas (deal flow), ideas fraught with uncertainties in market demand and customer acceptance but with the potential to catalyze more knowledge creation.

As these problems are solved, (hopefully) one increases the velocity of (quality) deal flow so investors have more choices since a better selection of deals = more comfort with risk & uncertainty. More and better deals helps investors accept ambiguity in the value of the technology (ideas and deal flow), since there are more deals/entrepreneurs to take the place of those that fail.

While technoparks, incubators, VC funds, centers of excellence, etc., are essential to tech creation, start-ups, etc., we've got to look beyond conventional network initiatives and focus on the qualitative aspects of knowledge & SME creation. Business formation units can help.

Action Item: Create Business Formation Units in Middle Income Countries

The purposes of a business formation unit are to increase the # & speed of start-ups launched & funded. The University of Michigan's (U of M) strategy is one model to emulate: it launched its business formation activity in 2006, to provide the services needed to better and more profitability commercialize university technology. U of M is a 'Top Ten' university in hi-tech start-up formation. See their portfolio <http://www.techtransfer.umich.edu/about/startups.php>.

Some Comments

1. This action item is a multi-year program, to create a business formation activity in one or more institutions in a country's innovation infrastructure (done only if confident that the US model is appropriate). The goal is to better and more profitably commercialize technology to the private sector (domestic & int'l customers) through licensing and/or start-ups. A 2nd objective and outcome is to encourage more entrepreneurship & risk taking with a 3rd being the acceptance of risk and uncertainty.

Attached is a summary of U of M's business formation activity, the 'Michigan Venture Center.' It shows the comprehensive nature & long-term commitment required to achieve success in business formation, to drive risk taking into the community.

2. While an interim measure of success is the creation of a business formation unit with the support, people and \$, the real test of success is licensing revenues and # of start-ups, yet such results take years to achieve. But we and they can't wait that long.

We must be proactive & creative to show Bank executives, senior government officials, stakeholders and shareholders immediate results, that we are on the right track, going in the right direction, i.e., contributions are being made in the interim to the development of the market.

To achieve this outcome, immediate results, see #3 in Phase 1 Project Task, to create confidence that work will result in a result.

3. For execution, each country establishes a small team with the responsibility to create the strategy, policies & procedures of business formation within one or more domestic universities or institutes. Once up & running, expand the team and deploy into the infrastructure.
4. Multiple tasks are needed, from learning about business formation units in US TTOs through execution into the country. Right now there are too many unknowns to detail each phase with precision or believability. So let me outline what to do, to start.

Recommendation to Middle Market Countries

Phase 1 Project Task

1. Identify the leading TTOs in the US, those that have demonstrated success year-after-year, repeatable outcomes. Some TTOs have business formation departments (with internal seed fund or VC functions) with the responsibility to commercialize/finance tech, e.g., U of M. Others have different names but with identical tasks & responsibilities.
2. Meet with them in the US, to learn how they operate, policies & procedures, why they do what they do given factors that affect them like:
 - the local economic environment
 - skills of scientists and their entrepreneurial desires
 - universities' history in development of 'gamechanging' vs. incremental tech
 - presence of VC \$ and VCs
 - serial entrepreneurs
 - nature of the deal flow, the quality of the technologies as foundations for start-ups
 - the attitudes of local businessmen, investors, entrepreneurs, the local community and the university to risk, uncertainty and ambiguity in tech creation, development and commercialization and how these attitudes shape their decisions to be 'hands-in,' 'hands-off,' 'elbows-in,' or 'do nothing' in business creation

3. Brainstorm ideas, what US universities can offer them and what they can offer US universities, where mutual cooperation is needed, beneficial, to achieve some short-term agreement (small success) for both parties. Suggest proposals, evaluate & negotiate an agreement. Subjects of a working agreement might include:
- Joint research between a US university and a middle income country's research institute, to create joint IP
 - Organize the entry of a US university's start-ups into a middle income country since American SMEs continue to seek growth outside the USA
 - Share resources in technology transfer & commercialization. This could take several forms, e.g., using a US partner's resources to create a business formation unit in the middle income country, relocate one or more university staff from the US to the middle income country and their staff (Chileans, Mexicans, Vietnamese, Russians, etc.) to the US, for skill transfer
 - Cooperative agreements on any one (or all) of the business development tasks #1-#4 that business formation teams do (see page 3 & 4 of the attachment, 'Michigan Venture Center')

I'm confident that other ideas will develop as we execute.

From the US university side, any agreement has to 'fit' into one of four boxes to get their commitment:

- Advance the university's educational mission
- Facilitate the creation of more technology, to do joint research projects
- Commercialize university technology to the market, including international countries
- Create educational or employment opportunities for students, consulting or research opportunities for faculty

There is precedent for, and interest on the part of US universities to collaborate. MIT (Ideas Lab, Amy Smith), Duke (Robert Malkin), California Institute of Technology, (Mary Ollenburger), Cornell (Monroe Weber-Shirk), SMU (Dr. Jeffrey Talley) and others have programs that link their facility and students with needs and entrepreneurs in emerging countries; to use tech to solve problems in emerging countries. Approach these US universities in addition to U of M and others.

4. Evaluate results, continue, stop, modify, what is working & not working. Create new plans, strategies.

Phase 2 Project Task

1. Define which elements of business formation to transfer to middle income countries in 2011 & the process to do so, the tasks, responsibilities, budget, outcomes, staffing & schedule.
 - Build models of business formation, and deploy them on a limited and select basis, 1st as a pilot initiative for testing, make changes and then execution to a larger number of nanocenters/institutes
 - Deploy the internal team, initially as 'doers,' later as advisors & mentors.

Getting US Commitments to Participate

Certainly doing one-off projects between an American university and a middle income country is useful as MIT, Cornell, Duke, etc., did, but we've got to think bigger (to make the expected impact).

What might be the focus of a collaborate effort, one that interests both the US side and the emerging market country? Look to those that:

- Serve national priorities (national projects), projects that governments deem important enough to support & sponsor with \$ and resources
- Link tech creation to tech needs in international supply chains

In Nigeria think energy, clean water, and medicines. In Russia think the off-shore natural gas field called Shtokman that requires technology that no one has developed yet; either the Russians will create needed technology or foreigners will. Rwanda, Uganda, Vietnam, and other countries have national priorities that country teams could transform into projects for collaboration.

National projects catalyze the energy and attention of domestic wealth since they create more wealth opportunities for local oligarchs; national projects require knowledge creation & technology development to realize.

National projects have another benefit: they reduce the degrees of separation that keep entrepreneurs from other entrepreneurs and investors from entrepreneurs. National projects bring technology entrepreneurs close to this wealth since they bring the technology that oligarchs and local wealth need.

One caveat: Recognize that wealth in the emerging markets will do business with successful serial entrepreneurs (an objective of ours), but they reject doing business with 1st time founders, and this cultural attitude we must work to change.

In the USA, e.g., 'change the world' companies like HP, Apple, eBay, Microsoft, Google, Yahoo, YouTube, Facebook, Twitter, Dell and many others were started by unproven entrepreneurs; many of their founders quit college, Harvard no less! I can't speak for countries like Chile, Mexico, etc. but I know that in Russia, a college dropout would not get to sit in the baseball dugout, let alone get to 1st base with a Russian oligarch; the culture, snobbery and superiority of wealth just won't permit it.

Comments, questions, feedback, let me know. The other idea for collaboration, link tech creation to tech needs in international supply chains, I'll detail in a 2nd memo to you.

Tom Nastas