

This model is based on a new concept of entrepreneurship relying on personal skills rather than idea or investment. The main aim is to create new opportunities for innovative startups by discovering and fostering available potentials, which are not normally considered as business projects.

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Innovative Startups

Skill-based Entrepreneurship

The present model is simple but very practical inspired by previous success stories. Matching personal skills and interests of students with professional expertise under a proper leadership can confidently result in successful business startups. The main obstacle in planning business startups is their high risks, but the present model initiates startups from fun projects without initial investment.

BACKGROUND

In the highly competitive market of higher education, quality of academic programs is no longer the main factor for choosing a university to study, as a professional diploma is not enough for a success career. Therefore, students are becoming more interested in universities building special opportunities for business startups or networking. On the other hand, the tendency for autonomy of universities needs new financial resources from practical projects. As a result of these two facts, initiating business startups has become a vital role for universities.

The current activities in universities for business startups are mostly limited to the classical models for commercialization of research findings. Although, this is utmost importance, such knowledge-based startups are limited to a narrow range of people working on cutting-edge research. Roughly speaking, these people are less than 1% even in top universities. In other words, there is no appropriate service for business startup for 99% of people working and studying in a university.

There is a tendency in some pioneering universities to support all possible kinds of entrepreneurship by building the networking clubs to pave the path for skill-based startups, but there is still no practical model for this purpose.

The present model introduces a practical program for assisting the entire academic community of a university to try their fortune in ambitious but feasible skill-based startups. This model also relies on the unique diversity of cultures (mainly different ways of thinking) in Europe, and undergoing inter-university programs such as Erasmus.

SKILL-BASED VS. KNOWLEDGE-BASED STARTUPS

The heart of any academic program in entrepreneurship is to teach a standard model of business startup, which is normally as follows



This is the classic model for business startups, assuming that a novel idea can lead to a new business. This model is knowledge-based in which the key point is the starting idea.

However, this model is not very practical in the current competitive market (there are many competitors utilizing the same idea, and the key to success is how to develop and present the business), and because of global accessibility to a broad range of knowledge (ideas can be simply altered to form new ones). Thus, if the main capital is just a brilliant idea, there is a long way to success. Instead, the main capital in a startup is the exceptional skills (including ambition and enthusiasm) of the core team rather than their initial idea (i.e., knowledge). A practical model for skill-based startup can be illustrated as



The latter model paves the path for many talented people to develop their own business based on the skills they achieved during education or work experiences. Whereas, the classic model discourages any startup unless one has a brilliant idea or groundbreaking discovery.

This skill-based model is practically followed by many successful entrepreneurs who are ambitious and adventurer. Since this model has not been academically formulated, they indeed follow their commonsense to play with their skills.

THE FANCY WORLD OF ENTREPRENEURSHIP

One of the driving forces for the rapidly growing interest in entrepreneurship is the exceptionally successful startups in the realms of Information Technology, because of their global visibility and simplicity. However, most people ignore the fact that they are mostly skill-based startups.

YouTube was developed by three friends who wanted to share their party videos with each other. 21 months later, they sold the company for \$1.65 billion. The starting point was not a brilliant business idea, but a gathering of friends who appropriately utilized their common skills to address their immediate needs. The initial motive was to play by thinking out of the box, rather than planning a business.

The key point is where to meet like-minded people. Working environment is not an appropriate place for this purpose, as people are somehow busy with everyday life. Academic community is the gathering of numerous eager and enthusiastic people who are ambitious for new ventures.

Google is the most famous name on the internet, a company with annual revenue of \$66 billion. It was formed when two PhD students accidentally met and discussed their ideas about ranking search results. For the first year of their experiment, they operated the project on the Stanford servers.

Having a large community of young, ambitious, and enthusiastic students is not the only potential of academia for business development. Universities spend huge budgets for campus life and social activities of students. New ideas are always appreciated in this young eager community; an incredible opportunity for testing prototypes.

Facebook is a famous company with annual income of \$12.5 billion. It was started by a Harvard student; neither the idea was new nor the programming was brilliant. Its success is only and only due to its initial market, as the project was distributed among the Harvard student community through a mailing list. Then, a subsequent viral marketing turned a fun project into a global social network.

Business startups are not only services for students, but also they enhance the university fame too. This is even a factor in some ranking systems of higher education. This can be beneficial even at national level.

Skype is a national pride for Estonia, but it was/is not an Estonian business at all. Skype was a Luxembourg-based company founded by Danish/Swedish entrepreneurs in 2003. To save the HR cost, they contracted the programming task with three freelance Estonian programmers who had previously developed Kazaa (a P2P file sharing program based on Napster, which was shut down by the US government due to sharing copyrighted contents, but it was not a serious problem in Estonia that time). Two years later, Skype was bought by eBay, and no connection with Estonia whatsoever. The interesting point is that a simple networking caused a significant international fame for a country.

COMMERCIAL ATTEMPTS

Although, universities attempt to initiate programs for the so-called skill-based entrepreneurship to increase the number of possible startups; still skill-based startups are usually occurred outside the academic communities through networking websites, owing to the lack of appropriate programs in universities. In addition to common websites such as linkedin.com, there are emerging online services exclusively focusing on this opportunity.

Meetup.com: This is a leading website for planning open gatherings in which people with the same interest can attend to meet up with like-minded people. A significant number of meetups are for business startups and entrepreneurship. In any European capital, there are regular meetings in which entrepreneurs get together for brainstorming and finding cofounders.

CoFoundersLab.com: In this website, entrepreneurs explain their running projects and look for finding experienced advisors to assist them in the business development. Normally, they pay the advisors with equity shares.

FounderDating.com: This website is for finding cofounders for promising ideas. A founder posts his project and the need for a specific skill to complete the team of cofounders. Each cofounder will get an equity share based on agreement.

CONTRIBUTING TO THE UNIVERSITY

The common advantages of business startups in university (such as financial interests, collaborations with emerging companies, etc) are well known, but the present model additionally contributes other benefits to the university:

- Such activities strongly enhance the loyalty of alumni to their *alma mater*, which is a key factor for universities. For example, American universities normally receive a significant part of their funds from endowments by their alumni. In recent years, European universities are also paying a particular attention to this fund-raising possibility.
- Campus life is an important criterion for both local and international students when choosing a university. Universities have limited budgets for extra-curricula activities, but the present model conduct such social activities as a part of business projects.
- The startup projects create consultancy jobs for the university faculty. This is a fact that many faculty members have second jobs, and this weakens the quality of their academic works. However, by working on academic startups within the university, they are more focused within academia on their fields of expertise.
- Owing to the fact that these innovative projects heavily rely on global marketing, the university activities are broadly broadcast over the internet. This directly improves the international fame and reputation of the university.
- Due to the flexibility of the innovative projects under consideration, they can be subject to various studies through academic research projects. This provides a golden opportunity to align academic project along a purposeful direction, instead of random case studies. Thus, the students can check their research in action, and the university proudly offer more practical education.

THE INNOVATIVE MODEL

The present model is totally new from both business and higher education perspectives. The concept of skill-based startups has been formulated here for the first time to differentiate it from knowledge-based startups. Moreover, the possibility of skill-based startups has been perfectly matched with the mission of higher education, not only as a service to the academic community but also as a driving force for the university advancement and enhancement.

In addition to these features, the core novelty of this model is to discover hidden potentials of a university, which are not normally considered as business or institutional potentials.

The skill-based startup model introduced above is indeed based on the concept of innovation. Thus, it is necessary to properly define innovation to explain the present model. In the realms of business, innovation is a misunderstood concept. Many people wrongfully consider innovation as "a new idea or product"; but, innovation is defined as follows:

The Process of *making changes to something established by introducing something new*

It is of vital importance to remember that innovation is *a process* and a dynamic concept, not just a starting idea. Another critical aspect is that

Innovation is *cooking without recipe*

we start with the ingredients we have. This is the reason that the present model does not rely on initial investment. Instead of waiting for discoveries or novel ideas, we collect the ingredients we have (i.e., the skillful people in the academic community).

In summary, the present model has been developed on three key foundations:

Skill-based Entrepreneurship: Instead of limiting our chances to knowledge-based discoveries and findings, new opportunities are created depending on our available skills. A novelty of this method is how to match individuals to form a perfect team to be ahead of rivals. In other words, the team arrangement is the key to success.

Innovation: Instead of finding solutions for our idea and planning; we look at our available skills, then, find the problems we can address in promising business startups.

Academic Community: University is the best place for business startups. There is no such a large intellectual community anywhere else in the society. There is a wonderful variety of skills in an academic community, and thus, we can perfectly match the innovative teams. On the other hand, the young eager students are the most active target for new products and services. By introducing something new in this enthusiastic community, we can get invaluable feedback to evolve the business before going to the open market.

NEW WAYS OF HEADHUNTING

Headhunting is an essential part of business, and big companies have specialized departments for this purpose. However, the traditional methods are no longer effective. Instead, the tendency (like the model presented here) is towards creating new opportunities rather than finding them. This is more visible in popular fields such as music (and generally art). New strategy is to foster talents through popular shows such as X-Factor, Got Talent, etc. Beside the fact that new talents are created (not simply found), the marketing is tested before commercial investment on a new project.

This is the same in academic environment too. PhD students expect their university to support them for attending international meetings, as headhunters are there to offer tempting jobs. Companies now prefer to directly work with leading research groups to have close connection with rising talents. Another important issue is the need for networking. For instance, EU major projects need collaboration of different research groups from at least three member states or associated countries. Thus, the winners are those who have stronger networks.

In general, the present model is not only limited to specific business startups; but also aims to assist rising starts to gain a better international visibility and build inter-university networks to pave the path for academic collaborations.

FUNDING THE PROJECTS

Although, the main theme of the present model is to initiate innovative projects without initial investment, advancement and expansion of business projects usually need money.

In recent years, crowdfunding has become extremely popular and overrun the classical ways for funding startups. There are two schemes for crowdfunding: investment as a loan or donation to be part of the project. Since these system are running globally, fund providers cannot easily verify the legitimacy of the projects proposed. Thus, the main factor for successful project is reputation. This is indeed a very basic feature which is the characteristic of the present model. In fact, this model creates new opportunities for the student startups to attract required funds internationally.

Even in the classical scheme in which a startup submits an application to banks for initial funding, this model builds an interdisciplinary team with different skills to write a foolproof business plan for a winning loan application and handle official paperwork.

TANGIBLE CASES: QUICK STARTUPS

To clarify how this model is feasible, some examples are given below for quick startups as a result of student activities. These are the common projects that students normally do for fun, but they never reach business level. The success of these projects merely depend on having interdisciplinary teams to make professional works. In other words, the main requirement is just to match students with different skills.

Music Industry: Consider a very common case in which a group of students or alumni wish to start their venture in music industry, as there are many talented musicians in any university. It is wrongfully believed that it is a personal matter of students, but this is a professional business development, which should be planned by people from quite different perspectives. Fortunately, all required people are in the same academic community to plan a professional project, while it is still a fun social project in the student community. On the other hand, the university's active community provides a rare opportunity for the project test-drive. The university does not need to invest on this project, but institutional support will tie this project to the university in terms of benefits and credits.

Youtube Channels: Not only Youtube is a giant online business, it has provided a platform for individuals to develop their own business startups. There are over 100 million-dollar channels in Youtube formed by individuals. There is no need for marketing, as the revenue is directly paid by Youtube based on the number of viewers of each channel. These channels regularly record videos and upload to Youtube. The topic of these videos varies from social challenges and comedy to educational materials and how-to tips. Consider a startup project for a channel supported by thousands of students from several European universities; numerous topics can be considered in this channel (e.g., educational materials). Moreover, imagine how this channel can be subject to viral marketing through participating students from different countries. There are even prestigious awards (at Hollywood level) for these web productions.

Travel Websites: Travel-related businesses are among the highly profitable websites. Consider only nearly 400,000 Erasmus students traveling around Europe. They use such travel websites to find place, guides, hosts, friends before moving. There is still no reliable service for young students to plan their move with peace of mind. The answer is a website moderated by a large network of students in European universities. First of all, people in the website can be easily verified, thus, this provides a unique trustworthy environment. Moreover, the target market is already involved in the project. Hence, the project success is guaranteed.

Loyalty-free Digital Products: A popular type of online jobs is producing digital products which can be sold with loyalty-free scheme. This includes from generic programming codes to artworks (including photos, graphics, animations). This is the main job of many individuals around the world, but this business model well works for group of people for two reasons: (i) in most cases, professional works can be produced by mixing different skills, and (ii) the number of sales increases exponentially by the number of products presented (this is due to the viral marketing of this business).

BUSINESS CONNECTIONS

This network is not limited to academic institutions, as a key mission of this model is to build effective connections with the business entities across the world. The network is extended outside academia to include both companies and individuals for finding projects and talents, respectively.

Outsourcing is a vital element in modern business models; major companies and even governments contract out their business processes to professional bodies. For example, British embassies no longer process visa applications; instead, a commercial company (which is originally French) is handling all types of visa applications (including immigrations).

The key point in this type of contracts is mainly trust, and thus, new companies have a little chance to enter this market. However, business startups backed by a reputable university have huge chances in comparison with commercial rivals. Consider a new company trying to offer a service at international level. The client company cannot verify the creditability and reliability of the serving company. However, when the company is a child company of a reputable university, then the client company is sure that this company will not be disappeared.

THE GREATER NETWORK

Networking is the heart of this project, but the network is not limited to a university. From its early stage, the network built

by the present model will be directly linked with other universities and potential human resources.

As mentioned above, one of the key starting points is students' social activities, which can be simply connected with those of other universities. This will be conducted by building connections with student clubs rather than universities at official level. In other words, we assist the university students and students of other universities to plan inter-university activities. As a side process, this can facilitate academic collaborations between universities too.

The expansion of this network is not even limited to academia, and there are lots of talented people outside academia who are eager to collaborate with promising projects. This brings new perspectives to the project, as people with working experiences participate to address practical issues.

WHY EUROPE?

Europe has unique advantages for this model. In this case, interdisciplinarity is not limited to different disciplines, as people come from various cultures, education systems, and most importantly different ways of thinking.

On the other hand, this model addresses a gap in social connection of students in European universities. In North America, students are more connected through various student societies such as *fraternities and sororities* building communities in which students live together. People directly and directly support their fellow members in entrepreneurship and business startups. 63% of the US cabinet members, and 85% of the judges of the US Supreme Court have been members of such student societies. This is the reason that the alumni are more keen to keep their connections with *alma mater* and support their universities by generous endowments.

Although, the present model is totally different from those student societies, there is a golden opportunities for entrepreneurship in European universities simply by matching students to follow their dreams in well-planned business projects.

ERASMUS OPPORTUNITY

Erasmus program is an exceptional success story in the European Union, but unfortunately, its success is limited to the cultural/social aspects rather than academic one. Students find their destinations mostly based on social factors, and do not plan for a better academic experience in the host university.

The present project provides a novel framework for smart mobility of students in which they find academic and business benefits along with cultural/social experiences. As described above, attractive projects are initiated in the target universities. The innovative projects of the present model can/should be advertised in other European universities to attract the attention of interested students across the Europe. Since eager students can simply transfer to the host university under Erasmus program, the core teams can be build with an international arrangement. The interesting point is that Erasmus students move another university not only because of cultural or even academic reasons, but also they join a business project. This guarantees that their visits to another European university is fruitful, because it is not limited to education only.

In addition, this framework encourages students to go to less popular destinations. The main reason for selecting popular destination is that exchange students are sure that they will in an international community, and not left alone as minority. With the present framework, they know that they come to a host university to work with an international team.

INTERNATIONAL STUDENTS

Attracting international students is one of the key strategic missions of all mid to top universities. In this highly competitive market, the marketing strategies are tricky. The main concern of international students is adaptability with a new academic system and culture. Thus, they strongly need some sort of support to overcome this fear. As a result, most of international students apply through commercial agencies.

One of the key business projects of this model will be the establishment of such agencies targeting different countries. These agencies are indeed the child companies founded by the the university students. They make profit from their clients, and the University gain a huge flow of international students.

In addition, the unique service of this model is an advantage to convince international students to choose this specific university. Not only developing their own business is the biggest motivation for international students, but also this creates an exceptional opportunities for the development of international business, targeting the home countries of international students.

Moreover, international students can contribute to the diversity of this model. They introduce new potential markets for business planning.

GENDER BALANCE

One of the social challenges of European countries is to build gender balance in various sectors without sacrificing the merit in employment. The present model creates a functional opportunity for stronger presence of women. The main reason is that women are psychologically better in team-working, and better stick to the original plan. Instead of hiring women for various positions to make the gender balance, the present model includes female students in the heart of innovative startups.

On the other hand, for a comprehensive brainstorming, we need to have a gender balance in the core teams of the innovative projects. The key point is that the gender ratio at university level is in favor of female students; the problem comes when they compete for senior positions. In this model, female students develop their future jobs through entrepreneurial projects.

ABOUT THE FOUNDER

Ali Eftekhari is a professor of nanotechnology with over 20 years of experience in academic research and science policy, working on various executive capacities in academia and governmental organizations. He has initiated several technology startups, and developed 15 academic programs in technology management including entrepreneurship. He has founded two world-class academic departments (with research-oriented theme) from scratch. His latest academic startup in Africa was featured by The Guardian as an exceptional success story in African higher education (www.gu.com/p/4avpt). He has also established innovation units or advised in both academia and industry for implementing new ideas or innovative marketing.

He has also built a supercomputer, two operating systems for academic applications, and several web-based programs for various applications (such as online education, electronic payment, networking, etc) including their native server architecture. He is actively working on the concepts of entrepreneurship and innovation in the realms of business development. He has worked in 4 different continents and supervised over 110 postdoctoral researchers and graduate students. He has authored about 100 original research articles in leading scholarly journals, and edited several reference books. He serves over 40 high impact journals as a regular referee and some other journals as an editor or member of the editorial boards. He is currently the President of the American Nano Society.