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### Entrepreneurship of EU Universities Graduates

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#### Abstract

This article will find out characteristic features and conditions and limits that impact, in a significant measure, on the success of entrepreneurship of generations of students leaving universities each year with many choices and different job opportunities laying ahead. This article will analyze the economic, social, cultural and policy-based conditions impacting on the entrepreneurship chances and opportunities of the EU universities students. Thence, the

article will propose improvement measures of those environmental conditions for countries of 2nd tier of ASEAN (Laos, Cambodia, Myanmar and Vietnam), paying special attention to Vietnam in order the students coming from this region to have more opportunities and become more successful in setting up and in implementing their own entrepreneurship plan in the face of the upcoming 4<sup>th</sup> industrial revolution.

**Keywords:** Entrepreneurship, University, Poland, EU, Graduate, Success

#### 1. Introduction

The term "industrial revolution 4.0" or "fourth industrial revolution" was first mentioned in 2011 at the Hannover fair to introduce industry programs 4.0, to promote automation and Traditional mechanical engineering of Germany. The Industry 4.0 Expert Group presented a series of recommendations on the realization of Industry 4.0 for the German federal government. Members of this expert group have been recognized as the founding fathers and the driving force behind Industry 4.0 [3].

According to Gartner, the Industrial Revolution 4.0 stems from the concept of "Industrie 4.0" in a report submitted to the German government in 2013. "Industrie 4.0" connects embedded systems and intelligent manufacturing facilities to create integration of digital capacitors between industry, business, functions and internal processes [3].

The first industrial revolution began in England in the second half of the 18th century. Up to now, there is a unified view of the three industrial revolutions that have occurred, each of which is characterized by substitution and changes in the nature of the production process and this change is caused by breakthrough breakthroughs of science and technology [4]. The first industrial revolution (1.0) used water and steam energy to mechanize production. The second industrial revolution (2.0) took place thanks to the application of electricity to mass production. The Third Industrial Revolution (3.0) used electronics and information technology to automate production processes. Currently, the fourth industrial revolution is arising from the third revolution, which combines technologies together, blurring the boundaries between the physical and digital (virtual) worlds and the biological world (the world of life) ".

According to Mr. Klaus Schwab, the breakthrough speed of Industry 4.0 has no historical precedent. When compared to the previous three industrial revolutions, Industry 4.0 is progressing exponentially rather than linear speed. Moreover, due to the interdisciplinary nature and with information and communication technology under the ground, it is now disrupting most structures of industries in every country. It foreshadows the transformation of both the breadth and depth of the entire production, business and management system on a global scale. Table 1 presents in detail the content of the aforementioned revolutions.

**Table 1:** Industrial revolutions in the world

Industrial revolution	Time lines	Content
1.0	1820-1870	Transportation. Steam engine (also called internal combustion engine).
2.0	1870-1913	Traditional industries (agriculture, heavy industry, mechanics, chemicals, mines, metallurgy) in developed countries. Electric motor.
3.0	1913-1950	New technologies such as energy, aviation, space, biotechnology, military engineering, information technology and communications. Computerization, automation.
4.0	1950-hiện tại	Integrating technologies together based on information and communication technology.- Social Network) - AI – Artificial Intelligence, Machine Learning) - IoT – Internet of Things) - Big Data) - 3D Printer) - VR – Virtual Reality) - Cloud and Cognitive Computing) - Driveless cars), Drones) - Smart robot, factory and city) - E-Learning, Telemedicine)

Source: [1, 2]

**2. Research problem**

Currently the industrial revolution 4.0 is taking place in developed countries such as the US, Europe and some Asian countries. Besides the new opportunities, the Industrial

Revolution 4.0 also poses for startups, especially the new generation of students, many challenges to face. Table 2 presents the opportunities and challenges of Industry 4.0 for startups and start-ups.

**Table 2:** Opportunities and challenges for startups come from the 4.0 revolution

	Opportunities	Challenges
1	Many emerging industries provide new start-up opportunities. New unique business models appeared.	The rate of technological change is so fast.
2	Opportunity to realize business ideas (general or specialized related to a field of industry, customer groups ...) without having to worry about capital.	The industries of both old and new can also disappear quite quickly if no longer suitable with the era, business model and startup opportunities as well.
3	Applying independent thinking, initiative and creative spirit.	

Source: author's

For starters who are EU citizens (and new graduates), they have certain advantages provided by the EU common market agreements. Specifically, these are the four pillar principles that lay a solid foundation for the existence, peace, development and prosperity of the EU:

- a) Freely circulating goods and services.
- b) Freely circulating capital flows.
- c) Freely circulating labor force.
- d) Freely circulate scientific and technological information, know-how, ideas....

These are the undisputed principles; EU member states are obliged to comply by not having to leave this common market block. The most recent example is the Brexit event, UK, through a referendum on 23 June 2016 chose to leave the EU because the people of this country only accepted a), b) and d) but did not want to accept c). The "Current state of issues" section below presents advantages for the start-up process of businesses and individuals in the European Union compared to other regions in the world, including Vietnam. These advantages are achieved not only by the four above-mentioned freedoms, but also by many policy and structural elements.

**3. Current state of the issue**

The European Union is a vast territory consisting of 27 countries (excluding the United Kingdom after the Brexit event) stretching from Northern European countries to Southern European countries, Western European countries to Eastern European countries belonging to the system. old

socialist. The European Union is a huge economy (the largest in the world even after the UK leaves the EU) and a diverse range of highly developed and most civilized Nordic countries in the world such as Norway, Sweden, and Finland. Lan, to Southern European countries, is slightly less developed, vulnerable in recent economic crises, such as Portugal, Spain, Greece; Western European industrial countries are highly developed and the leading economies in the world such as Germany, France, Italy and the Netherlands, and Eastern European countries are post-socialist countries with transitioning economies. Rapid integration and growth such as Poland, Hungary, Slovakia or the Czech Republic.

Among other issues of concern to EU politicians such as food safety, human rights, balanced and sustainable development among local regions (regardless of which country is a member of the bloc) ... Industry and innovation are also the top priority fields. Since the foundation of the European Union, up to now, a large amount of budget has been devoted to supporting funds and encouraging innovation funds closely linked with businesses and universities (especially business and technology schools where students often have different ambitions for unique technology and business ideas). Businesses and corporations in highly developed countries have been in the process of forming an ecosystem to create resonance effects that help other businesses, start-up students to deploy and to realize their adventurous business ideas based on the technology platform typical of the Industrial Revolution 4.0 in order to

create great new values for society and promote the growth momentum of the economy. Stagnant in some member countries. Less developed Eastern European countries can also benefit from participation and seeking assistance from this already established ecosystem. In the industrial revolution 4.0, which is often not mentioned as an essential mandatory element, but if businesses and individuals starting from Eastern Europe and Southern Europe have a persuasive business idea, Western Europe and Northern Europe are willing to support based on the principle of pillar (b) to freely circulate capital flows to the most profitable addresses regardless of the countries in the bloc. Moreover, in the event that if capital flows cannot be gathered and circulated in time, these ideas can be transferred for immediate implementation in developed and competent and motivated countries. The greatest creation of this community community. We see that in the 04 freedoms mentioned, the labor force has the greatest inertia (c), gradually followed by goods and services (a), capital (b) and know-how, ideas and inventions of science and technology (d). The dynamism and flexibility of ideas are the intangible assets that are the highest among the four circulation lines mentioned above. So once an idea encounters any difficulties in implementing and realizing it in one place, it can immediately be implemented elsewhere in the EU with more favorable support conditions.

#### 4. Proposed solutions

Based on the experiences and realities related to starting a business in the era of technology revolution 4.0 in the EU, businesses and startups in ASEAN in general and in Vietnam in particular have learned what to meet. What are the difficulties and barriers in the process of proving the feasibility and realization of their unique business ideas in the context of ASEAN countries developing after and inferior to those of European countries (except for Singapore, GDP per capita and HDI index of the remaining ASEAN countries are inferior to EU countries)? The advantage of ASEAN countries is that the population is bigger and the population rejuvenation rate is higher than that of the EU, the opportunities for startups will be more and more diversified due to their economies and markets. While in the development period and in time of revolution 4.0, it is only in the embryo stage. So, startups here can be aware of and recognize numerous opportunities, bold business ideas regardless of how big or small they contribute to the growth of the economy and social change. A serious weakness lies in the education systems of the ASEAN member countries, which puts these countries at risk of falling significantly behind the EU region and other regions equally dynamic in the world such as China, Japan and Korea. Of the top 1,000 universities in the world in 2016, ASEAN had only 2 universities in Singapore and the remaining 10 universities in Malaysia, Thailand, and Indonesia, far behind the EU (hundreds of universities), China, Japan and South Korea (dozens of schools per country) - according to THE (Time Higher Education) [7]. Education and the quality of education are major contributors to the process of innovation and creativity, motivating generations of students to have many opportunities and be equipped with the necessary entrepreneurial competencies. Businesses should be in partnership with universities to test feasibility, commercialize inventions and inventions, to launch startup

ideas from start-up incubators at universities and industrial parks and high technology into the operational practices of businesses and the economy. Therefore, the investment to improve the quality of education is closely linked to the trend of new technologies, the needs of employers and self-recruiting, especially for higher education, where students graduate immediately access to the industrial age 4.0 labor market, is the most urgent problem and is a prerequisite solution to enhance the entrepreneurial spirit and the chance of success for students in the future.

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