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ABSTRACT

Entrepreneurship plays a crucial role in the economic growth within the context of global economy, especially in developing countries. To respond to the dynamic market, students should be well-equipped with entrepreneurial skills to flexibly deal with the continuously changing environment. Although it is under controversy that entrepreneurial spirits and competencies cannot be taught, a number of schools and universities have been adopting entrepreneurship education to bring students professional knowledge as well as supportive skills that enable them to regularly create innovative and valuable business ideas. In line with the high market demand for growing new business ventures, educators recognize that entrepreneurship education should even start from the early age, i.e. from primary to high school level. Consequently, Junior Achievement, as known as a program to teach primary students how to start and maintain a business, has been recently introduced to primary students in Vietnam. However, most of the schools are developing their own curriculum without a systematic program to be synchronically applied nation-wide so far. The paper discusses the needs of entrepreneurship education in schools in Vietnam and then proposes new possible measures to promote and ensure its efficacy in a long run.

Keywords: Entrepreneurship, Education.

1. INTRODUCTION

Entrepreneurship which contributes to create many small and medium enterprises and jobs are no doubt one of the national economy's drives. Within the current global economic development context, entrepreneurship seems to be a trend that prevails in many markets, more remarkably in the scientific and technological economy (Papadopoulos, 2019). It can be said that thanks to continuous startups in various industries and sectors, it has generated a rapidly economic change, promoting technology and knowledge development. It is for these positive reasons that starting a business has been gaining the attention of many parties including the government as well as the educators. While the government and local communities are having incentives to accelerate the number of startup projects, family and schools are equally focusing on fostering sustainable future entrepreneurs. This practice is believed to transform young, innovative minds to responsible, contributive workers equipped with supportive knowledge, competencies and confidence to commence and sustain a new venture (Chigbuson, 2011).

Entrepreneurship is a combination of risk, creativity and innovation associated with a sustainable business model, robust financial plan, ethical and social responsibility to establish a profitable venture which brings valuable contribution to the economics and society (Schumpeter, 1934). It has a positive impact on unemployment by increasing the number of mini-firms and hence more job opportunities. Unemployed individuals may also come up with a new idea and think about becoming an entrepreneur (Bhorat, 2006).

According to Erasmus et al. (2006), entrepreneurship education is a structured formal conveyance of entrepreneurial competencies, which in turn refers to the concepts, skills and mental awareness used by individuals during the process of starting and developing their growth-orientated business ventures.

Whereas experts hold different opinions about whether or not entrepreneurship can be taught, it is undeniable that the knowledge and skills needed for an entrepreneur should be equipped since the early age to gradually solidify his/her business mind and essential business know-how. While the concept of entrepreneurship education was defined a long time ago, educators and researchers have challenged the belief that entrepreneurship solely relies on entrepreneur's traits which cannot be taught in schools and universities. Although entrepreneurship was not officially embedded in academic programs about a decade ago, educators have embarked to integrate entrepreneurship into the core curriculum for students to understand business-related knowledge and become proficient in professional skills (Askun & Yildirim, 2011). It is claimed that entrepreneurial spirit should be initiated from a child's fundamental education and then strengthened at higher levels. This practice should be implemented in both developed and developing countries. The importance of entrepreneurship education has been raised to a new level step by step. Several policies were issued to encourage entrepreneurship, while systematic training programs have been deployed to educate children about entrepreneurship at a young age. A typical example of entrepreneurship education is a comprehensive training program for students as a common thread throughout all their study progress from preschool to Grade 12 (Regeringskansliet [Swedish Government], 2009). In 2000, the Organization of Economic Co-operation and Development also recommended all its member countries should enclose entrepreneurship-related subjects to their curriculum at all educational levels. Furthermore, a study by Iro-Idoro & Jimoh (2017) pointed out that a successful implementation of entrepreneurship program in schools is likely to yield out a lower rate of unemployment when more graduates tend to start their own business ventures with viable plans. In consequence, it increases the demand for entrepreneurship courses and nurtures entrepreneurial ideas within school scope.

More specifically, Vietnam educational system has experienced profound reforms at institutional and national level. In line with globalization, some schools have implemented initial steps to insert entrepreneurial activities into teaching and learning. A strategic orientation was also created to sustain students' entrepreneurial spirits; however, there has been no consistent training program to be installed in all schools nationwide so far. Only a few international or bilingual schools located in big cities are applying their own plans by adding some entrepreneurial activities based on students' levels through academic years.

The need for entrepreneurship education for small age students will be discussed and some suggestions for early entrepreneurship education program, particularly in Vietnam, will be proposed in this paper.

2. THE NEED FOR ENTREPRENEURSHIP EDUCATION FOR STUDENTS IN VIETNAM

Startups have recently emerged significantly in big cities in Vietnam due to technology innovation, technology-based projects notably received more government's attention than ever. Besides, related departments appear to lack experience in processing proposals and business ideas. A national entrepreneurial framework has not been clearly constructed. Notwithstanding the fact that entrepreneurship education has gained more scrutiny, it is only separately organized by professional associations, corporations or local communities. The incompleteness of entrepreneurship education is shown by the diversion of content and methodology, resulting in academic confusion and implementation plan disparity.

For an individual to become an entrepreneur, one should collectively have knowledge, skills and personal traits that fit in a business world. It is certain that the first two factors may be learnt and practiced through in-class activities but the last one seems challenging. A study by Frank, Christian, Manf & Josef (2005) confirmed that entrepreneurship education in secondary schools contributed to the factors involved in entrepreneurial personality development. Entrepreneurship has been considered one of the areas to be learnt and practiced since formative stage in life. Training entrepreneurs should not be postponed until adulthood when some long-term characteristics, attitudes and ways of thinking may hinder entrepreneurial intention. It is undoubted that a nation's prosperity relies on human resource quality and education will make this potential wealth become reality. Vietnam young population will be one of the components that contribute to the vast majority of high-quality workforce in about 10 years, yet compared to other ASEAN countries, Vietnam has not executed a necessary plan to provide its own considerably competent workforce. Teaching entrepreneurship in its simplest form is to establish and change a student's cognitive mechanisms empowering them to have their capabilities and perspectives of a competitive entrepreneur. Moreover, it is expected that entrepreneurship education highly prepares young graduates to cope with life matters full of complexity and uncertainty with flexibility and accepting attitudes Gibb (2005). The values related to entrepreneurial ventures were measured and Cárcamo-Solís, Arroyo-López, Alvarez-Castanón & García-López (2017) declared that these values could be promoted and sustained by an effective design of a teaching and learning approach.

Due to the long-established culture in Vietnam, school students usually spend most of their time attending theoretical classes with a few chances of working in ongoing projects. According to Hedayati, Salehi & Ghaleh (2017), a significantly long time before graduates can commence their professional jobs and synchronize business and life skills with theories seems unwise. The shortcoming of real-world experience makes the knowledge learnt fade away sooner or later. Furthermore, it is a common practice that Vietnamese high school students often choose majors and universities following their parents' desire or friends' tendency rather than attaining an insight of a career path that suits their abilities and ambitions. Therefore, valuable experience gained from real projects considerably elevates students' exposure to numerous job positions from which they are likely to have appropriate orientation for their future career paths. Subsequently, university and college students waste 3 to 5 years on immersing in unsuitable courses. Some of them stop their journey and start over again by another entrance examination while the others reluctantly finish the remaining years. A training program including entrepreneurship would help students increase their opportunities to

work with professionals from various industries and reduce the negative consequence of making the wrong choices.

For these reasons, it is necessary to build a formalized training program to help Vietnamese school students cultivate entrepreneurial spirits and practice business skills. A quality and well-monitored strategy should be put in place to achieve these goals.

3. A PROPOSAL FOR EXTENSIVE STRATEGIES IN EARLY ENTREPRENEURSHIP EDUCATION

Indeed, it requires multifaceted attempts to add entrepreneurship subject to the current curriculum. The existing limitations and actions to be executed will be discussed in this part.

3.1 General education framework and long-term strategy

Firstly, an entrepreneurship education framework is necessitated to be applied nationally. The unconnected execution of entrepreneurship training in schools and regions will confuse lower-level executors including program coordinators and teachers. As for students, this may result in the lack of comprehensive understanding of business theories and fail to raise an urge to create their own ventures. Therefore, the government should conduct a long-term entrepreneurship-oriented strategy and a curriculum framework to ensure consistency. Under the guidance of a general framework given by the Ministry of Education and Training, schools and teachers will have clear instructions to follow and avoid conflicts during the program deployment. It is worth mentioning that the determined strategy should be long enough to span over all development stages of an individual so that primary, secondary and high school administrators have their teaching plans in conformity with each other.

A cooperative mechanism which allows primary students to work with polytechnic students is recommended. Children who are imaginative and unafraid of failure often come up with creative ideas that are later realized and implemented by college and university students. This method works best for multilevel international school systems where less outside commitment is required. An executive program in which students of all educational level are involved is suggested as below.

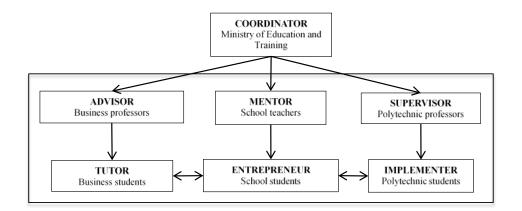


Figure 3.1 - Academic network involving students of all educational levels

Figure 3.1 illustrates a network of different academic participants throughout all levels of entrepreneurship education. Once a policy framework is proclaimed, Ministry of Education and Training in each city and province will play the role of a coordinator to cluster primary, secondary, high schools and universities together to make entrepreneurial groups. This model enables junior students to be the center of the entrepreneurial process, i.e. they will do most of the business-related activities led by their teachers, as known as mentors. While the mentors teach young entrepreneurs about fundamental theories, business students, monitored by their advisors, will act as a tutor to support juniors with local settings and give advice based on their basic knowledge and previous experience. To make real products, school students are assigned to work with polytechnic students who may partially use the ideas as their final year projects with the supervisors. For this program to be put in place, all schools and universities should come to an agreement to collaborate with each other. The government's venture fund should also be granted to entrepreneurship research activities and the collaboration accordingly. This paradigm establishes a strong relationship among academic parties, reducing tedious passive learning practice and providing students with a valuable set of skills and hands-on experience.

Another act that can be done by the government is to promote entrepreneurial spirits anywhere and anytime. For example, new ways of rewarding such as promoting job positions based on performance allow workers who regularly yield innovative ideas to attain a higher salary rate or additional bonuses and fee (Hedayati, Salehi, & Ghaleh, 2017). Such incentives may change parents' perspectives about entrepreneurship as a career alternation and encourage juniors to immerse in entrepreneurial path in their later development stages.

Finally, there should be a simpler and less paperwork procedure that assists students with patent registration. At present, even researchers find it complicated to have their invention patented due to the lack of information and consultancy. Perhaps a separate mechanism exclusively used to protect students' inventions under the name of schools with fewer intermediaries is necessary.

3.2 Teaching programs

In fact, the implementation of entrepreneurship education has not been synchronously carried out due to the unfamiliarity in new teaching methods and programs.

Chances for teachers and students to access high-technology projects are relatively low, leading to insipidity in teaching and learning. School authority should find a way to offer an intensive program to support business and technological innovation. Now, Science, Technology, Engineering and Math (STEM) subject is taught at certain schools to give students a comprehensive understanding of interdisciplinary, application-oriented approach. However, Science, Technology, Art and Business (STAB) is presumably a better cohesive learning paradigm to advance further entrepreneurial actions at later stages such as secondary entrepreneurship education. This program appears to center on new venture creation, financing and sustaining business with business plan stemming from scientific and technological ideas.

Both STEM and STAB models require a stipulated annual plan with specific theme days which are decisive factors to the success of entrepreneurship education programs. Business stakeholders and technology company representatives should be invited to these open days when students stand a chance to proudly introduce their own innovative products or ideas, increasing their public speaking, communication and negotiation skills. The honor of explaining their own outputs in front of experts also motivates students spur more creativity and build more products in the following projects. At the end of the year, parents should also view the results and recognize the development of their children.

Also, the content of entrepreneurship education must comply with the community needs and social trends. An intensive interaction between school and local community and a long-lasting cooperation with local enterprises may be of great help. School students are advised to participate in tradeshows, talk shows and workshops to spot the growing interests and demands, reach a variety of state-of-the-art technologies and obtain substantial expertise necessary for a successful startup journey. Excellent students may also join in regional and national competitions to rehearse capital call and gain feedback from professionals.

3.4 Teaching approaches

At the center of entrepreneurship education is the teaching approach problem. It is undoubtable that entrepreneurship instructors are essentially not primary teachers who are teaching languages and mathematics but rather required to have a business-related degree. Despite their extensive experience and profound insight, low-level educators need to be able to deal with young minds and reactions. Training programs may help close the gap between business and school teaching ability. As a result, there is a likelihood that a well-trained business teacher will seem to boost little students' performance by understanding their actions and behaviors. Birdthistle, Hynes & Fleming (2007) claimed that entrepreneurship teacher training is one of the influential factors to increase the number of entrepreneurship education practices. In addition, Montecinos, Walker & Maldonad (2015), Tuytens (2011) supported the idea that head teachers or facilitators who will provide pedagogical management tools to manage curriculum should be trained to create entrepreneurial culture, visions and strategies.

It is important that teachers can recognize students' entrepreneurial ability since their young ages because early exposure to entrepreneurship may consequently have great impacts on students' intentions to become entrepreneurs (Dao, 2018). In this respect, it is required by both entrepreneurship and STEM teachers who work directly with young students to notice their reactions to entrepreneurial opportunities, entrepreneurial activity execution and so on.

One of the aims of entrepreneurship education is to foster creativity and innovation, meaning children ought to be free from blocks that seemingly hinder their imagination. Teachers should enable less-blocking teaching approach and ask questions requiring more critical thinking. Brainstorming techniques including divergent and convergent thinking may be utilized to encourage students to freely generate as many ideas as possible (Vries & Lubart, 2019). Lifelong learning should be fostered as it will ensure self-knowledge exploitation even after graduation.

A student's attitudes, behaviors and perceptions should be positively formed during the early development stages. Teachers, who possibly play role models, certainly make a considerable contribution to little students' advancement. A combination of action-oriented teaching and problem-based learning methods will improve a student's experiential judgement, problem-solving skills, creativity, enterprising skills as well as turning them to entrepreneurial direction. Likewise, talks by successful entrepreneurs and businessman should be regularly organized to give students a gain an insight of entrepreneurial activities and how they endurably overcame barriers to achieve the goals. Additionally, although it is uncommon for Vietnamese parents to come to class

and share with their children and friends, it is highly supportive to primary students' career orientation if they are aware of a great deal of job titles in real world.

3.5 Educational environment and culture

It is obvious that entrepreneurship education encompasses not only a solid curriculum but also cultural adaptation and creative activity promotion by accepting changes, embracing challenges, allowing students to make mistakes and take risks. Entrepreneurial students with novel ideas should be rewarded annually.

It has been a long tradition that each class has its own parent committee to deal with students' issues. However, it is recommended that parent committee should be replaced by student committee to activate their problem-solving skills. The young people understand friends of their age better than adults; therefore, they are capable of bridging teachers and students. Also, working with teachers, supervisors, parents and other students appears to make student representatives more confident and flexible in planning, organizing, communicating and negotiating.

Schools should take advantage of multi-discipline partnership between various scientific areas and businesses, show job opportunities, promote teamwork spirit among students along with abundant resources including modern facilities and entrepreneurship departments. Another method to reinforce the business technology engagement is to locate incubators to assist students with product and venture growth. In spite of a number of incentives and mechanisms, incubators have been receiving more attention as it particularly promotes new business creation and partly prevents failure in many countries (Bruneel, Ratinho, Clarysse, & Groen, 2012) (OECD, 1997) (Bergek & Norrman, 2008) (Ratinho & Henriques, 2010). Within the scope of in-class activities, teachers may come short of time to offer a close supervision along the entire entrepreneurial process. In such a case, campus incubators or technology parks are of significant benefits.

4. CONCLUSION AND DISCUSSION

The necessity of entrepreneurship education and areas for improvements have been discussed; however, it may take a long time and a tremendous effort to implement a comprehensive reform. The findings of Ruskovaara, Hämäläinen & Pihkala (2016) indicated that although the effect of school size on entrepreneurship education is unsystematic and undefined, larger schools are seemingly competent to maintain high resource availability and teacher specialization which are helpful for learning-by-doing approach. The asynchronous practice of school development in Vietnam, specifically in less developed cities and regions, evidently creates barriers for throughout entrepreneurship education. Despites the hindrances, entrepreneurship should be a mandatory unit at all levels of the entire education system from primary school to university.

REFERENCES

- [1] Asadi, A. (2006), "What is creativity and how to make students creative?", *School Management Development*, 4(5), 18-27.
- [2] Askun, B., & Yildirim, N. (2011), "Insights on entrepreneurship education in public universities in Turkey: Creating entrepreneurs or not?", *Procedia-Social and Behavioral Sciences*, 24, pp. 663-676.

- [3] Bergek, A., & Norrman, C. (2008), "Incubator best practice: A framework", *Technovation*.
- [4] Bhorat, H. (2006), "Unemployment in South Africa: Descriptors and determinants", *International Dispute Resolution Agencies*. Washington D.C.: World Bank.
- [5] Birdthistle, N., Hynes, B., & Fleming, P. (2007), "Enterprise education programmes in secondary schools in Ireland", *Education + Training*, 49(4), 265-276.
- [6] Bruneel, J., Ratinho, T., Clarysse, B., & Groen, A. (2012), "The evolution of business incubators: comparing demand and supply of business" *Technovation*, 32(2), 110-121.
- [7] Cárcamo-Solís, M., Arroyo-López, M., Alvarez-Castanón, L., & García-López, E. (2017), "Developing entrepreneurship in primary schools: The Mexican experience of "My first enterprise: Entrepreneurship by play"", *Teaching and Teacher Education*.
- [8] Chigbuson, A. (2011), "Entrepreneurship education and training in Nigerian tertiary institution: Issues and challenges", *ABEN Book of Readings*, 1(11), 140-146.
- [9] Dao, C. (2018), "A Proposal for Improving Entrepreneurship Education for Engineering Students in Vietnam", *Review of Integrative Business and Economics Research*, 7(3), 12-19.
- [10] Erasmus, B.J., Loedolf, P.v.Z., Mda, T. & Nel, P.S. (2006), "Managing training and development in South Africa (4 ed.)", *Cape Town: Oxford University Press.*
- [11] Frank, H., Christian, K., Manf, L., & Josef, M. (2005), "Entrepreneurial orientation and education in Austrian secondary schools: Status quo and recommendations", *Journal of Small Business and Enterprise Development*, 12, 259-273.
- [12] Gibb, A. (2005), "Towards the Entrepreneurial University: Entrepreneurship Education as a lever for change"
- [13] Gibb, A. (2018), "Entrepreneurship and enterprise education in schools and colleges: Insights from UK practice", *International Journal of Entrepreneurship Education*, 6.
- [14] Hedayati, S., Salehi, M., & Ghaleh, H. (2017), "The factors affecting the development of entrepreneurship school in educational system of Iran", (*Case* study of Mazandaran Province, 6(2), 80-86.
- [15] Iro-Idoro, C., & Jimoh, I. (2017), "Entrepreneurship education and self-efficacy: Strategies for reducing unemployment problem among Nigerian graduates", *Trames Journal of the Humanities and Social Sciences*, 22(12), 34-39.
- [16] Montecinos, C., Walker, H., & Maldonad, F. (2015), "School administrators and university practicum supervisors as boundary brokers for initial teacher education in Chile", *Teaching and Teacher Education*, 49, 1-10.
- [17] OECD. (1997), "Technology Incubators: Nurturing Small Firms Paris: OECD Publishing". OECD Publishing.
- [18] Papadopoulos, A. (2019), "Most startup friendly countries in the world", *CEOWorld Magazine*.
- [19] Ratinho, T., & Henriques, E. (2010), "The role of science parks and business incubators in coverging countries: The Portuguese case", *Technovation*, 30(4), 278-290.

- [20] Regeringskansliet [Swedish Government]. (2009), "Strategy for entrepreneurship in education", *Stockholm: Regeringskansliet*.
- [21] Ruskovaara, E., Hämäläinen, M., & Pihkala, T. (2016), "HEAD teachers managing entrepreneurship education - Empirical evidence from general education", *Teaching and Teacher Education*, 55(55), 155-164.
- [22] Schumpeter, J. A. (1934), "The theory of economic development", *Cambridge*, *MA: Harvard University Press*.
- [23] Tuytens, M. &. (2011), "Stimulating professional learning through teacher evaluation: an impossible task for the school leader?", *Teaching and Teacher Education*, 27(5).
- [24] Vries, H., & Lubart, T. (2019), "Scientific Creativity: Divergent and Convergent Thinking and the Impact of Culture", *The Journal of Creative Behavior*, *53*(2), 145-155.