



STARTUP IN SECONDARY EDUCATION AS A STIMULUS FOR THE LABOUR MARKET

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Abstract:

The aim of the article was to point out and characterize different problems connected with cooperation between secondary schools and employers and benefits for local and national economy. The work discusses examples of cooperation among secondary schools, employers and higher education institutions. It also talks about introduction of practical entrepreneurship to schools in form of startups. The article discusses forms of academic entrepreneurship i.e. entrepreneurship incubator, spin off and spin out as continuation of secondary schools startups. It also characterizes startup in Great Britain.

Key words: *secondary education, startup*

INTRODUCTION

How to cope with challenges and failures, how to communicate effectively, how to find a key to successful and interdisciplinary cooperation, how to recognize the needs, create and verify a value that will be bought and used by others – all that is taught by life. All of the above and more can be accomplished by school while preparing for team problem solving and building high and lasting values. Teaching entrepreneurship from a very young age will help to select the best and to support them. It will also build the awareness of an “employer”, not only the “employee”. Studying will become more attractive through interesting, inspiring examples, up-to-date knowledge and a balance between theory and practice. Teachers will be supported by entrepreneurship practitioners. Competitions and education games will encourage students to undertake business activities. Students should acquire knowledge where to find support for their enterprise ideas and proper institutions will fulfill their task [8].

Active involvement of employers into education of young people, cooperation between schools could increase the level of practical skills and soft skills of people entering the professional market the lack of which is very often pointed out by employers. That would lead to decrease of employers’ problems concerning recruitment, decrease in investments for training of newly employed and shortening the time needed for their introduction. Moreover, that would lower the scale of incongruity between supply and demand on the Polish market and decrease unemployment among young people.

It is very important for regional and local economy to prepare young people for entering the labour market and supplying them with proper skills required by employers. The quality of education including vocational education influences businessmen’s decisions concerning creation of work places, allocation of their investments, broadening their operations [1].

DESCRIPTION OF ASSORTED ACTIVITIES SUPPORTING EFFECTIVE COOPERATION BETWEEN AN ENTREPRENEUR AND SECONDARY SCHOOLS IN CREATING A COMPETENT EMPLOYEE

Effective cooperation between vocational schools and businessmen is beneficial for employers, schools and students. Employers have a possibility of educating their future employees with expected skills, personal and social competence necessary to start work. Students may familiarize themselves with modern technology, gain practical skills to operate the latest equipment, they also have the opportunity to develop such skills as team work, stress and time management.

Contemporary surroundings are becoming a maze of networks and organizations are less able to participate alone in the competition, The need to act in face of changing demands of the market favors creating relations with surrounding entities which can decide companies’ development of even survival.

Clusters

When speaking about rules of mediation and establishing cooperation between schools and businessmen it is important to mention industrial clusters. The concept of a cluster is becoming very popular as an effective form of cooperation and a platform facilitating interactions between entities creating it. Clusters are an elastic form of cooperation between 3 groups of entities: companies, educational institutions and research entities (science institutions, research institutions) and public authorities, thus they create possibilities for cooperation between education and the world of business.

The main characteristics of a cluster is its cooperation (competition as well as cooperation between entities, a strategy of mutual creation of values and competition with common goals and endeavours of a given sector, branch or region). The most important areas of a cluster activity around knowledge transfer are:

- benchmarking groups (platforms for analyzing processes and practices employed by own company compared with practices employed by other companies, considered the best in an analyzed area, being a standard),
- research centers specializing in education, training and cooperation programs,
- trade institutions (associations, organizations) with a goal to initialize and coordinate actions leading to improvement of particular areas within a cluster.

New educational clusters with connection to industrial ones may be a very interesting solution for the educational market.

Financing according to a German model used in construction business

In countries like Germany and Austria, where the vocational system is mainly dual, training realized with an employer is very important. In companies, students gain professional experience and are prepared for future work. This connection is considered a benchmark all around Europe and is the key factor for Austria's success as an important education and industry center. It is worth to note that the unemployment level among young people in Austria is only 9% and is one of the lowest in Europe. What is important is the fact that in those countries it is the employers who take the financial burden of preparing young people for the professional market.

The construction business in Germany utilizes a fund created by all companies called SOKA-BAU. The fund, apart from its vacation compensatory branch (ULAK – *Urlaubs und Lohnausgleichskasse der Bauwirtschaft*) and additional retirement branch (*Zusatzversorgungskasse des Baugewerbes*) uses its sources for educating students in professions connected with the construction business. The compulsory deduction is 2% of a social fund of construction companies (those with at least 50% of their production/turnover in the sector). The fund finances educational centers (supra-regional institutions developing practical skills), livelihood of students in those centers, scholarships.

Training in a company

Training in a company allows students to familiarize themselves with modern management methods, work organization, utilization of modern technology. Teachers have an opportunity to update their theoretical and practical knowledge. Employers will expand school's learning materials by providing them with materials concerning introduced innovations and offered products. They will also make their products available to schools and practical education institutions to be used during classes.

Practical training and theoretical education will be more effective when teachers of theoretical subjects take part in the process of gaining knowledge from a company where their students improve their skills. A compliment for the gained knowledge would be a simultaneous cooperation between science centers, higher education institutions, teachers and gifted students. Introducing them to annals of a profession at universities it would be possible to organize regular meetings to broaden specialist knowledge. That is why teacher-university, teacher-employer relations should last for the duration of the education process (at least once per two weeks). At times of population decline, instead of taking popular and drastic steps like personnel reduction, it is possible to change that fact into a success engaging teachers into training on the basis of the abovementioned relations with a financial support of employment agencies.

There are methods of improving teachers' and students' knowledge on the basis of short-term trainings from 1 day to 2 months. Short-term trainings not always reflect the characteristics of a position or its issues. They also leave many questions unanswered.

Time Bank

In order to compensate the financial costs the employers spend on graduates, it would be better to have a time bank rules. They would be based on a connection student – employer; employer – teacher; teacher – school; student – school.

A time bank is an informal self-help based institution, that can exchange unpaid service among its members. The contributors declare what kinds of service they can provide for the benefit of others and the coordinators head it (the service) up to those who need it, according to earlier requirement. The service provided for the benefit of the bank's customers is registered – the easiest clearing unit is an hour, regardless of the market value of the work done. Hours which were earned in such a way could be 'spent' on direct support given by the other member belonging to the system, offering us an interesting service.

Gaining the knowledge from people starting to retire

The workers who gained professional experience and knowledge thanks to employers and hard work, take them away at the point they retire. In this way the entrepreneur pays the costs related to introducing a new inexperienced employee. To regain some part of the invested money, for example, one year before the retirement an experienced jobholder may cooperate with the new one, in order to transfer his/her experience and knowledge. The motivation for the experienced worker could be the way of settling accounts – some parts of profits acquired by a trainee are cumulated on a special account and, under the condition a trainee passes the in-house exam, the money will go the retired (misappropriation of funds prevention). In case the intern fails, the money from the account goes to an outer company, to pay for the further schooling. The willingness to work as a retired person would result in greater commitment from both parts, because after some time another intern will have to be instructed.

Retrofitting workshops with new tech - didactic equipment

Changing technology, high costs of modernization, keeping tech-didactic base, the necessity of upgrading teachers' skills cause that vocational training needs greater amount of pecuniary than traditional education. Schools have no chances of vocational education in actual conditions, without a cooperation with employers. What is more, they cannot acquaint students with the latest and most expensive technologies. The cooperation between schools and employers, although better year by year (a lot of instances prove it), still faces a lot of barriers, even if it is advantageous to both parties. For schools, it gives possibilities to adapt the content of education to the employers' and labour market needs, better access to modern technique and technologies. For companies, it is a great opportunity to roll their products out and in further perspective, to recruit well qualified workers. The cooperation with educational environment, employers and social partners is essential prerequisite for achieving high results in vocational education [9]. In case when the occupation requires to be -appropriate, simulators should be introduced in school workshops.

The internet edu-occupational platform

Great support for both: teachers and students, would be the access to sophisticated scientific and technological knowledge available on the company website. In this way they could get information they need in the exact occupation.

A good example could be the edu- occupational platform called 'foreman and the stuff zone' lead by Jastrzębska Spółka Węglowa SA, (Jastrzebski Coal Company) which disposes extra resources (useful for those who accustomed to mining trade), and free access to updated Polish Norms and parts of data used in a teaching process, without trespassing the companies/partners' business [1].

DESCRIPTION OF ASSORTED ACTIVITIES CRATING NEW ENTREPRENEURS

Startup

The startup revolution was initiated in mid 90s of the 20th century by enterprising young Americans looking for their first million in the Silicon Valley. In time, the startup fashion spread all over the world and for a few years has been present also in Poland mainly in form of entrepreneurship incubators directed towards helping to start one's own business. They are led by large private foundations, public institutions or private individuals offering various forms of support for beginner entrepreneurs – from training courses to legal personality and access to finances for investments. The startup environment is a kindergarten of business where a beginner entrepreneur learns to walk. One does not get just a place at a desk but also a large number of tools needed to slowly test and develop his/her business ideas. It can be an innovative mobile phone application, new internet service, something connected with sport, fashion, dietetics or construction. Anything is possible. A green apprentice is led by a hand by experienced businessmen acting as mentors. Accountants, lawyers and a huge amount of good will people create a startup society. They train together, share their ideas and advice, support each other during frequent workshops and events. Thanks to incubators they also have contact with so-called angels of business – investors seeking interesting projects [5].

Startup school graduates should acquire, during their studies, rare competence which allow to continue their interests in academic entrepreneurship or on the labour market.

Research shows the following characteristics of enterprising behavior:

- wide range of knowledge, contacts and possibilities – an intellectual businessman moves simultaneously in many environments, fields and worlds which creates unique possibilities of development, knowledge enlargement and contacts broadening to create a potential expansion base,
- ability to integrate the process of gathering, selecting and processing information with decision making mechanisms, the ability to synchronize simultaneous work at many decision making levels which will allow to avert layering of certain information, hypothesis or evaluations,
- possibility of global operation with broad contacts and frequent relocations which increase possibility to identify and take a chance,
- ability to be in a right place at a right time – flexible identification of changes within the surroundings

allows for determination of possibilities leading to achievement of goals,

- identification of role in business as an intellectual challenge and adventure which allows to keep distance to a fulfilled role and may be an endless source of inspiration,
- attachment to ethical questions and employee development [5].

A high school graduate who acquired the abovementioned skills and knowledge of practical business could develop his/her talents in academic entrepreneurship i.e. entrepreneurship incubators or spin off and spin out.

Entrepreneurship incubators

An entrepreneurship incubator is an economic and social development institution set for selection, organization and acceleration of development and success of new enterprising companies through a complex program of business support. The main goal of an incubator is to promote effective companies which, after leaving the program, are able to survive financially on their own. Upon leaving an incubator, companies create work places, revitalize local environment, commercialize new technologies, create prosperity and development for local and national economy [5].

Spin off and spin out

A spin off company is a new company that was created by, at least, one employee of a science or research institution or by a student, graduate of a university in order to commercialize innovative ideas (knowledge) or technology. The spin off company is usually financially and personally independent from its university but cooperates with it in compliance with market rules. A spin out company is a new company created by, at least, one employee of a science or research institution or by a student, graduate of a university and/or by a university or an organization unit of a university created to commercialize the university's intellectual property, in order to commercialize innovative ideas (knowledge) or technology. The spin out company is usually personally and financially connected to the university which results in close mutual cooperation.

The spin off/spin out company is characterized by its establishing entity (research scientist, student or university graduate) and the fact of using the university's intellectual property which constitute the company's competitive advantage. An important factor differentiating the two company types is their connection to their native organizations. It is worth noting that the native organization can be formed not only by the university but also by other entities e.g. research unit, company and others [2].

Startup in Great Britain

In a few years the London ecosystem went through incredible transformation thanks to cooperation among public, private sector and higher education units. The key role was played by administrative authorities of a local and central level. A very important enterprise was the creation of the Tech City cluster in the eastern London also called the Silicon Roundabout in connection to the Silicon Valley. The Tech City is an initiative with a goal of associating startups with large technological companies, allowing for free transfer of knowledge, ideas and background in shape of human resources and investments. Currently it is the third largest startup cluster in the world after San Francisco and New York. It was created thanks to initiative of the local and national authorities with a goal to create a strong business-technology environment similar to the Silicon Valley.

A huge advantage of the London ecosystem over other European centres is the actual financial participation of the country in development of the startup environment and image support of the highest officials. In 2013 the Prime Minister Cameron allotted 50 million pounds for infrastructure investments around the Tech City, creation of co-working space, lecture rooms and workshops for startups. The Great Britain authorities also created a startup visa. It is a work permit for people from outside the European Union directed towards startup creators that wish to create their business in the UK. The visa is a convenience for those entrepreneurs who want to build a company of a global range, plan to employ new workers and have perspectives of effective investments in the UK. The national policy concerning angels of business and investors is liberal in form of tax credits. Tax credits are also granted to startups that debut as a result of a buyout by larger market players. Introduction of young companies' shares into the stock market (IPO) is more common now and was unheard of only a few years ago. It is another testimony of a dynamic development of the London startup scene.

RECAPITULATION

Apart from turning students into employees, local authorities should also concentrate on forming future employers. That is why we should focus on creating startup schools (classes) through:

- Making a coherent entrepreneurship curriculum “from kindergarten to professor”. Its aim will be to prepare young people for the role of an employer and to lead their own business enterprises. The priority is attractive, up-to-date knowledge and a balance between theory and practice. Entrepreneurship teachers, supported by experts will show how mechanisms and institutions supporting business work. Effectiveness of the new education program requires regular evaluation and progress monitoring.
- Creation of a Chief Technology Officer (CTO) position at different levels from national to local governments. Chief Technology Officer is a person who makes decisions concerning choice and direction of using modern technologies and supervises coherence of their use. CTO should help solve businessmen's local problems (infrastructure, regulations) and simultaneously be able to select the most attractive ideas that could be realized by businessmen along with the government or the city [8].

For many years Poland has been dealing with the problem of talent drainage – immigration of the most clever citizens with potential to create startups and employ talented specialists. To make them stay in the country, Poland should create conditions of establishing and running a company at least as advantageous as in other EU countries often chosen by young entrepreneurs. We should remember that moving one's business to a country with better conditions is a matter of a few days [8].

Well developed entrepreneurship is the basis for a country's well working economy. A businessman plays a key role on the economy scene whatever the perspective. An

economist sees the businessman as a catalyst for production development, work place creation, generation of added value and economy dynamization through innovation. An official sees the businessman as an entity that pays taxes and an instrument of the country's economic policy. An employee expects entrepreneurs to create work places, good working conditions and decent wages. Statisticians send many questionnaires to managers in order to describe their world and actions in numbers. As we can see, the entrepreneur is the centre of economic relations. If there are no entrepreneurs, production will not develop, officials will not get their taxes, workers will be unemployed and statisticians will have no material for analysis [3].

In Europe new models of innovative education are being created. Education is a public enterprise that governments and international institutions are responsible for. Education is perceived in categories of large and complex systems. That is why, the driving force of education are usually institutions such as governments, universities, consortia of huge entities and resources rich foundations [6].

They are the ones to gain from long-term benefits of this enterprise's success.

REFERENCES

- [1] J. Dychała. „Correlation between employers and vocational education in creating competent graduates as an element of region development,” in *Systems supporting production engineering - review of problems and solutions*, J. Kaźmierczak, Eds. Gliwice: P.A. Nova S.A., 2014, pp. 43-56.
- [2] B. Gierczak. „Spin off i spin out,” [Online]. Available: <http://przedsiębiorczosc-akademicka.b4ngo.pl>. [Accessed: Jun. 10, 2015].
- [3] T. Gutkowski. „Ekosystem Londynu Wzorem Dla Startupowej Europy,” Apr. 13, 2015. [Online]. Available: <http://mamstartup.pl/najnowsze/6488/ekosystem-londynu-wzorem-dla-startupowej-europy>. [Accessed: Jun. 10, 2015].
- [4] U. Nowacka. *Perspektywy rozwoju przedsiębiorczości akademickiej*, Prace Naukowe Akademii im. Jana Długosza. Częstochowa: Edukacja Techniczna i Informatyczna, 2011.
- [5] P. Schutta. „Czekając na anioła biznesu,” [Online]. Available: <http://magazyn.7dni.pl>. [Accessed: Jun. 10, 2015].
- [6] D. Spikol, T. Koskinen and Y. Mor. „Innowacje, przedsiębiorczość i kształcenie,” 3 Jun. 2015. [Online]. Available: <http://www.edunews.pl/nowoczesna-learning/3044-innowacje-przedsiębiorczosc-i-kształcenie>. [Accessed: Jun. 10, 2015].
- [7] Startup Poland. „Podpisz Deklarację Programową,” [Online document]. Available: http://startuppoland.org/wp-content/uploads/2014/11/StartupPoland_PL.pdf. [Accessed: Jun. 10, 2015].
- [8] Startup Poland. „Współpracujmy na rzecz innowacyjnej Polski. Deklaracja Programowa,” [Online]. Available: <http://startuppoland.org>. [Accessed: Jun. 10, 2015].

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