

The Relevance and Problems of Entrepreneurial Competence Development in Vocational Training System

Vladimir F. Chepel^{1*}, Aleksandr A. Nikitin², Mikhail P. Palyanov³, Vladislav A. Ovchinnikov⁴, Albina A. Temerbekova⁵

¹Altayskiy Business Alliance, Barnaul, Russia, ²Institute of Pedagogical Studies of Gifted and Talented Children of Russian Academy of Education, Novosibirsk, Russia, ³Kuzbass Regional Institute of Vocational Education Development, Kemerovo, Russia, ⁴Kuzbass Regional Institute of Vocational Education Development, Kemerovo, Russia, ⁵Gorno-Altai State University, Gorno-Altaisk, Russia. *Email: chepel.vladfed@yandex.ru

ABSTRACT

The article substantiates the necessity of education system transition to mass instruction of entrepreneurial competences development. The problem of entrepreneurial competence development is recognized as being of great importance since it is associated with the transition process to a new structure of industrial relation between small and big business at the end of XX century. The leading approach is the analysis of current situation in economy and education system in various countries concerning the demand for entrepreneurial competences development. The authors define purposes, conditions, principles and approaches used to design, develop and implement a teaching, organizational and methodological package. This package will be an efficient supplement to the existing teaching aids in the system of higher and secondary vocational education. The authors determined some particular priority guidelines associated with the investigations of the specified problem which should be included in the range of scientific and pedagogical objectives and offered some issues for further discussion and collaboration.

Keywords: Entrepreneurial Competences, Training, Organizational and Methodological Package, Vocational Education

JEL Classifications: I21, I25, I28

1. INTRODUCTION

1.1. The Relevance of Research

The important evidence of the industrial age decay was the unexpected renascence of small businesses at the end of XX century. Instead of the expected significant substitution of small business by big business and even its total disappearance in the mass production sector predicted by many scientists there are now some obvious signs of its rapid development. Currently surprising statistical factors of small business sector growth can be observed. Although there was a trend of its significant decrease in the first half of the past century (see details below 2.2). The contribution of small and middle businesses to gross domestic product is equal to 50-60% in the developed countries and the rate of its employment reaches 70% (e.g., in Japan). There are millions small and middle business enterprises there. Under the conditions of industrial globalization it seems to be not only paradoxical, but also intriguing contradiction.

These figures are widely known, however, their revolutionary significance and meaning are not realized by all people, including the staff engaged in education. These new circumstances send a challenge to education system. Education system should be able to cope with the challenges arisen in the postindustrial era (Minimansurovich, 2014; Yashkova and Kalimullin, 2015). The classical management based on the hierachal structure of the participants of economic activity does not any longer satisfy the demands of networking structure (schemes) of manufacturing organization. New management schemes suppose not a simple decision implementing made by a single center, but require the coordination of actions for implementing own decisions made by different centers.

The paradigm of hired managers for “giant pyramids” existing in big businesses should be replaced by a new paradigm based on training new entrepreneurial type managers who possess leadership traits and are able to found small and middle businesses,

develop their own enterprises and run them in the “industrial ecosystems” environment.

These fundamental and large-scale changes in education system determine the innovative nature of a new model with corresponding studies and investigations.

1.2. Subject of Research

Few attempts towards determining some common purposes concerning new education paradigm have recently been made. In order to introduce new learning technologies, forms and instructional content aimed at training new managerial competences some real measures should be taken. The analysis of causes and consequences of the rapid growth of small and middle businesses at the turn of the centuries, made by Chepel (2014), gives grounds for the conclusion that we are facing not only quantitative changes but also qualitative leap in management development in the environment economic processes globalization. It requires fundamental changes in the educational system of management basics.

We discuss the issue of a new entrepreneurship training paradigm from the view of the problem which Russian educational system is confronted with. This issue requires solution even in the countries with a stable educational system aimed at entrepreneurship competencies formation. This can be explained by the fact that the education system was formed 50-70 years ago under the conditions of the past industrial age which does not correspond to new realities.

Considering as vital to discuss the ways of personnel training able to work in modern small businesses among research and educational community, we suggest some general patterns for the development of education system of entrepreneurial competences training. This system should extend and improve the vocational education model.

2. METHODOLOGICAL FRAMEWORK

2.1. Methodological Principles

The design and development of an innovative model of entrepreneurial competences training and its efficient implementation require intensive study, careful planning and prediction of possible organizational consequences of the developing model use. It is possible, provided that the following methodological principles will be used: Systemacy, integration, fundamentality, priority, practical orientation and adaptiveness. The key principles of a new model implementation should be integration and priority.

The priority principle is based on the state policy in the determination of development priorities and state support for small entrepreneurship (businesses) in the Russian Federation in the process of guidelines implementation of the scientific and technological development. Comparative-pedagogical investigations of domestic and foreign experience concerning entrepreneurship training allowed us to use comprehensive approach which supposes the consideration of historical,

economic, sociological and philosophical prerequisites and certain conditions.

2.2. Literature Review

The analysis of the change in demand for entrepreneurial activity training in the 20th century is given below. We would like to begin from the statement of the fact, how the contradiction between small and large businesses has developed and has been resolved during the 20th century, since it is the most relevant issue concerning the mass instruction for the entrepreneurial activity.

More recently at the beginning of 60th of the last century there was a point of view that the larger the company is the more it produces and the less it buys in the market, therefore, the lower the company expenses are the higher its competitiveness is. The efficiency of large hierarchical systems was justified by the dominating postulate “economies of scale” existed in economics. All companies which were able extended their managerial pyramid through company amalgamation and company takeover, and there were no limitations in company’s growth.

The clear and typical illustration of the above mentioned trends were the processes in the car industry during the period till the Second World War described by Smiley (2004). By 1920 there were only 120 firms engaged in the car production from several thousand small companies which were earlier involved in this industrial sector. It should be noted that the share of two leading companies (Ford and General Motors) constituted 70% of the whole car market. By 1929 there were 44 companies in the market and by 1940 there were only 8 companies. Chrysler joined two market leaders and the total share of these three companies was 85%.

The rapid growth of large companies was inventible in other industrial sectors too. This led to the abrupt growth of the number of employees in big businesses. Between 1925 and 1939 the share of manufacturing assets held by the 100 largest corporations rose from 34.5% to 41.9% with corresponding transition of manpower resources from the small business sphere into the big business sphere. There were no signs of this destructive tendency decrease at that time. The government considered small business support in the antimonopoly policy and legislative consolidation of some special niche to promote fair competition for the benefit of small business. The solution of this problem was recognized as being of great importance since small business was the fundamental basis of American society and a continuing source of dynamism for the American economy.

The companies’ growth up to an enormous scale caused sharp decrease of management efficiency. This factor contributed to small business survival. In practice, the trend in networking organization of industrial relations was steady gaining in popularity. This new form of managerial organization involved the substitution of company departments by more efficient partners, who represented small and middle businesses. The problem of the increasing complexity of management, especially concerning work motivation which has a direct influence on its efficiency cannot be compensated by simple raising the level of traditional

management at large-scale enterprises (Chepel, 2014). When the companies due to global competitiveness extend to giant sizes, the problem of management efficiency is almost unsolvable. To be more exact, this problem can be solved by refusing hierarchy and by engaging partners being owners of small or medium-sized enterprises in the industrial process.

Thus, the scale of production growth and renascence (restoration) of small business are complementary processes and constituent parts of an overall transition process to a new structure of industrial relation. The integration and cooperation of big and small businesses produce a synergetic effect, where each side wins from the networking interaction and interoperability. Small businesses get reliable and long-term orders and consequently the possibility to take part in global economic processes. Big businesses become more competitive due to the increase of management efficiency and flexibility.

The transition of economic agents to the level of global production is the major factor of small and middle-sized business renascence. In turn, small business "has saved" very big businesses from the threat of regress (decline) and inefficiency by helping them to cope with the problem of complex and bulky management system. At present, any large corporation is the symbioses of a lot of hundreds and thousands small, middle-sized and big enterprises, and their cooperation is getting stronger and the level of this cooperation is getting higher. It became the main organizational innovation of the 20th century.

The work by Birch (1979) initiated in theory the process of the current situation revision and rethinking. This work stated that over the period from 1969 to 1982 of all net new jobs created in the USA 82% were generated by small firms (with 100 or fewer employees). Larger firms with more than 500 employees, by contrast, generated <15% of all net new jobs.

As a result by the turn of the century the percentage of employees in small firms and large firms was almost the same with small employment domination in small businesses which constituted 55% in 2014 (the USA) (Data of SBA, 2015).

Analyzing statistical data over the past three decades in the USA, we found that there is a sustainable tendency of any key indicators increase in small business sphere. For example, there was an increase in the number of small businesses: In 1992 there were 19.5 million small businesses, in 2000 there were 21.5 million small business and in 2010 there were 27.9 million small businesses, where three-quarters of small businesses were nonemployees; this number has trended up over the past decade, while employers have been relatively flat (Data of SBA, 2012). The number of small businesses in the United States has increased by 49% over the period from 1982 to 2010. It should be noted that the increase was due to nonemployees' small businesses.

The revolution in industrial relations was only reflected in economic theories in 80th. The correction of firm theory was initiated by Williamson (1983). The changes were so dramatic and radical that the development and creation of an absolutely

new modern concept of this part of economic theory can be inferred. According to this concept, there is a great demand for entrepreneurial competence training.

The above conducted analysis of the economic literature shows that theoretical economics was able with some delay to comprehend and describe decided and groundbreaking changes in the practice of economic relations. However, there is lack of information and studies concerning the adaptation of pedagogical theory and practice to new realities. The books and articles being available are mostly critical, where the dissatisfaction with the actual state of things and the tasks to be solved are stated (Kiyosaki, 1991; Trump and Zanker, 2009; Hess, 2014).

The analysis of current situation in foreign countries concerning entrepreneurial competences formation shows that the education system in these countries is at the stage to work out an adequate answer to the sharp and brisk demand in entrepreneur training. Public interest in business has quickened since the majority of society was unsatisfied with available possibilities. The evidence of this active and profound interest is the fact that the books written by authors mentioned above and other similar are on the list of bestsellers for a long time, though many of them try to avoid such terms and concepts as "entrepreneurship" and use their own terminology ("financial literacy" or "successful leader"). Another clear evidences of society interest to this problem are the meetings (described by Trump and Zanker, 2008) held at the weekends at large stadiums in Canada and the USA, where vigorous critics of present posture of affairs in the field of education such as Kiyosaki (1991) and Trump and Zanker (2008) gather together tens of thousands people.

This issue is also discussed by some scientists and practitioners. Here are some examples: The recognized guru of classical management Drucker (quoted on Edersheim, 2007), who has been engaged in classical management development for almost 70 years at the age of 90 wrote that "the perception underlying the majority of companies do not any longer represent the facts." He classified them as "obvious (apparent)" but not "conscious."

The second example is the latest work by business coach Covey (2005) about "the 8th habit" which became a bestseller after his previous book "Seven habits of efficient people" written in the trend of classical management in 1989. In his last book about a new management type (which he calls "leadership abilities") he makes a conclusion that one can achieve only satisfactory results using a managerial type, while through the use of a new management type being entrepreneurial in essence it is possible to achieve excellent results.

Very crucial is, from our point of view, the report made recently by Case and Fiorina (2015) at the University of Virginia. More important is not the content of this report but the circumstances of its emergence. The University of Virginia has different standard and, undoubtedly, qualitative components of business-education with strong links to global business, using active learning approach and team-based collaboration (Darden School of Business, the World-class MBA in different formats, the Batten Institute for

entrepreneurship and innovation). However, this University sets up a commission on entrepreneurship and middle-class job responsible for road map developing aimed at creating knowledge and measures to develop the entrepreneurial spirit and skill. The forth part of the report is dedicated to formulating the ideas to improve of entrepreneurial education.

The example of systematic research of the content, forms and educational programs aimed at entrepreneurial skills training in colleges is the dissertation by Hagan (2004) defended in 2004. The education practice in the USA demonstrates the relevance of these programs and there are no colleges or universities in this country where these programs are not implemented and used (as elective or supplementary paid courses). The problems of entrepreneurial skills formation at schools were considered in works by Robinson and Aronica (2015).

3. RESULTS

3.1. The Features of National Doctrine Development in the Field of Personnel Training for Free Market Economy

The adaptation of education system to the above mentioned global economic changes is to be solved together with the problem of the reforming of post soviet education system, science and economy. This reforming has its own advantages and disadvantages. On the one hand, we have a chance to develop education system relevant to new era. From our point of view, reforming and modernization of education system require the correction of long-term objectives which will be able to meet the demands concerning modern management of market economy entities (parties). It does not take much time lasting several decades for "manager revolution." On the other hand, there can be some delays and loss of momentum due to the unevenness (irregularity) of the reform pace.

The most obvious expenses of "market" education reforms include, firstly, overestimation of the role of economics and, secondly, the hypotrophy and exaggeration of customers and suppliers' attention of educational services to "management" in all directions of economic education. Both tendencies have a direct and negative impact on the level of graduates' training concerning their performance in a market economy.

The first specified feature is a federal component, introduced in the form of a compulsory course aimed at all students' training to the conditions of "a market economy." We have to admit this component did not function, since it was not supported by other disciplines and was just included into syllabus creating an additional load and illusion that some required changes were implemented. This measure (component) should be expanded (supplemented) or substituted by "an initial management course" lasting one term, which will include the discussions of the following issues: The distinction between the terms "boss (head)" and "leader," the "managerial" and "entrepreneurial" management styles. At least, this problem requires consideration, study and development.

The second problem reflected in domination of "economic specialties" in the market of educational services resulted in

"artificial reduction" of students' enrolment majoring in economics. This problem can be solved "naturally" by introducing alternative course "training for market economy." This alternative should be an education system aimed at entrepreneurial competences training for all branches of vocational education. Until the education system is not practically-oriented, all taken measures will not ensure the expected results and will lead to the rise of the fee for tuition and new suppliers of educational services "being in a high demand" and we will still have deficiency of specialists majoring in required subject areas.

However, this unjustified demand is one of the sources of optimism for us. This unjustified demand and popularity of the economic professions (a manager working for foreign company or a civil servant) stated by sociological opinion polls and surveys give clear evidences that many people feel "something special that is necessary." This feeling (perception), however, is not satisfied.

One more feature that we take into consideration in our further proposals is the low demand in proper entrepreneurial competences. The long-term experience of conducting courses on the basis of entrepreneurship (business undertakings) gives grounds to make a conclusion that the number of people even among youth, who are interested in this issue, is extremely low. At the early stages of education when the main personal attitudes are formed, the topics about leadership and social activity are at students' margin of attention. Thus, we think that all work concerning the formation of entrepreneurial competences had to be started long before vocational training.

The objective reality having been existed in our country over a long period of time was in suppression of business initiative by social institution system. Business initiative cannot be compensated by social and family traditions. Purposeful and planned state policy in integration with the modernization of vocational training system can contribute to the solution of this problem and reduction of time spent on taking measures in this area.

3.2. To the Problem of the Ability to Entrepreneurial Activity

The content of the term "mass character" and its interpretation by entrepreneurial competence training depend on the answer to the above mentioned question. The majority of post soviet population have a widespread stereotype, that the ability to entrepreneurial activity is very rare. It is supposed that only a tiny percent of people "possess" this ability. We can agree with this statement only when it is a matter of outstanding abilities, which we will discuss further in the proposed model.

Usually, by the assessment of this ability the matter is not the lack or availability of acquired knowledge, skills and habits, but the availability of genetic inclinations. It is to be mentioned, that a person (as a biological species) has genetically preset parameters (height, weight, IQ), which vary depending on the normal distribution law. It means that almost 70% of all population possesses "the coefficient of entrepreneurial abilities" in the middle range of "the sigma interval." Totally, this share will be higher by people who "have higher and secondary vocational education."

The share of “the gifted (talented)” increases the percentage of people possessing enhancing abilities according to normal distribution (right from the specified interval (about 15%).

It is obviously, that for running small business it is enough to have average (ordinary) abilities in “the.” The problem is where there is the limit of range which cuts off the “tail of learning disabled.” People with lower (understated) abilities in the left-side “tail” of normal distribution have some problems. Firstly, it constitutes only about 15% of general population (beyond “sigma interval”). Secondly, the point with the rejection boundary which cuts off “the tail with the slow-learning (the incompetent)” depends on the intelligence of small businesses. The more “banal” the type of small business is, the more to the left the limit of range will be and this also reduces the number of “slow-learning (the incompetent)” To solve the problem associated with determining the boundary of “cut off” is both not of theoretical and practical importance since it concerns small and insignificant amount of percent.

The all above mentioned allows us to make a conclusion that the overwhelming majority of people have the ability to found and run a small business and, therefore, mass teaching is possible. If there is necessity to determine the boundaries of the interval with normal abilities to entrepreneurship, then it is sensible to set the problem to determine the boundary from the right side, since it is very significant for society to find and support people with extraordinary abilities.

4. DISCUSSIONS

4.1. Framework of Education System of Entrepreneurial Competences

From our point of view, the following conditions and principles should provide a basis of education system aimed at entrepreneurial competences training:

Entrepreneurship is not a profession, but a form of realization of vocational competences. Any professional activity or work can be done either by an employee or an entrepreneur. Therefore, there is no sense to expand the field of specializations by new branches (specialties) of vocational training and develop for them Federal State Education Standards. It is necessary to design a new training, organizational and methodological package, which can become a block for each vocational education standard.

This package is not limited by a single training program dealing with business undertakings (entrepreneurship) and its organizational and methodological training. It should also create a favorable environment and atmosphere in an educational institution, which will contribute to entrepreneurial spirit rise and will be able to attract attention to the business undertakings (entrepreneurship) issue, revive interest in this activity and give an opportunity for personal development. In terms of new reality of labor-management relations (industrial relations) the point is, that “ecosystem of entrepreneurship (business undertakings) training” should be created in an educational institution. Some components of this new ecosystem should be included in the syllabus in the form at least of two elective courses. If there are more than two

elective courses included in the syllabus, they should have a common interdisciplinary approach and mode of study (optional courses, trainings, business-clubs, students’ business-incubators and other infrastructure components for innovative business-projects implementation).

Training courses and other components of the developing teaching package should be verified by the rate of person’s involvement in the issue of business undertakings (entrepreneurship). It means that this package should have motivational, developing and educational mode of study. Some courses (some components) should be paid, therefore, the whole package is sensible to design, implement and draw up in the system of supplementary education.

The formation of entrepreneurial competences is more moral and volition act than economic training. Therefore, a special attention should be paid to psychological aspects: Communication, management, personal growth and development. Economic components of competences should be compact, as concrete as possible and significant for practical business undertakings. All the above mentioned practically excludes the possibility to study economics. The study of legal aspects of business undertakings should also satisfy these requirements.

The core of the whole package, its alpha and omega should be the basic (general) education program aimed at entrepreneurial competences training. As a remote resemblance and analogue of this program can be viewed MBA program recently being popular with businessmen. This program declares the necessity to develop management skills from the middle to the high level. We suppose that we need a program aimed at entrepreneurial competences training from zero to the middle level, which is enough to found and run small business. By analogy with the MBA program its code name should be, for example, SBA - “Small Business Administration” or “Small Business Management.” The main purpose of the investigation should be the definition of its concept, volume and content based on the excising domestic and foreign experience with its further correction after intensive study of the program efficiency.

A special attention should be paid to the student group with outstanding entrepreneurial abilities. As in all other spheres of human life the strategic breakthrough of the whole society is closely associated with the most talented people in a specific area. The competitiveness of national economy as well as the welfare of all members of a society will depend, first of all, on educational level of this unique personalities and the demand in these high qualified specialists.

There is a range of specific objectives being solved: From the development of criteria and instruments for quantitative estimation (evaluation) of entrepreneurial abilities by people who have them at “giftedness” level until the development of special programs which focus on the students’ training possessing these abilities. The role of this group is so vital that we recommend including the work with this group in all programs concerning the organization of entrepreneurial competences training.

The last feature to be considered is regular personnel, who will ensure entrepreneurial competences training. All measures will be insufficient if the training) is conducted by lecturers and teachers, who know about business undertakings only in theory (from books). We are of opinion that only lecturers and teachers (business coaches) who have own experience in running personal business, even in small businesses can cope with the above specified tasks. The content of a special program for teachers' retraining and their advanced training dealing with SBA syllabus is essential.

4.2. Scientific Maintenance

The development of the teaching package at all its stages (design, testing, correction and implementation) should be supported by serious pedagogical and sociological studies in the field of vocational training and entrepreneurship.

There is flagrant necessity to conduct fundamental investigations of motivations relative to the acquisition of entrepreneurial competences. Detailed elaboration of motivation "for" and "against" (demotivation) is equally important. Unless this problem is solved, it is impossible to ensure the efficiency of the own core training program and organizational measures aimed at the program implementation.

The problem of entrepreneurial spirit development at nursery, primary and secondary schools claims insistent pedagogical attention. The success of its solution will have a positive impact on economy, society, each person's fate and vocational training. We think that this issue requires much more attention and discussion, which is beyond the topic and purpose of our article.

5. CONCLUSION

The process of spontaneous subsystem generating aimed at entrepreneurial competences training in vocational education has already started in the form of uncoordinated initiatives of state and private educational organizations. This process can be considerably accelerated through enhanced training of personnel able to work in a modern free market economy. The effectiveness of teaching depends largely on the selection of appropriate teaching methods and these new methods should be included in governmental and

educational programs. It completely meets the requirements of the new stage of the Russian economic development.

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