

**INNOVATIVE APPROACHES
OF LIGHT INDUSTRY' MODERNIZATION IN KAZAKHSTAN**

**ИННОВАЦИОННЫЕ ПОДХОДЫ МОДЕРНИЗАЦИИ
ЛЕГКОЙ ПРОМЫШЛЕННОСТИ В КАЗАХСТАНЕ**

*M.Y. ZHANGUZHINOVA, A.M. SABITOVA, K.K. ABILKALAMOVA, B.D. AITQULOVA
М.Е. ЖАНГУЖИНОВА, А.М. САБИТОВА, К.К. АБИЛКАЛАМОВА, Б.Д. АИТКУЛОВА*

(Алматинский технологический университет, Республика Казахстан)

(Almaty Technological University, Republic of Kazakhstan)

E-mail: aumira@mail.ru

This article describes the main directions of modernization of light industry' cluster of the Republic of Kazakhstan through integration of science, education and production.

The authors present the experience of implementing innovative methods and technologies of preparation of specialists in Kazakhstani higher education institutions, which promote effective preparation of clothing designers for modern production.

В статье описаны основные направления модернизации кластера легкой промышленности Республики Казахстан путем интеграции науки, образования и производства.

Авторами представлен опыт внедрения инновационных методов и технологий, применяемых в процессе обучения специалистов в казахстанских вузах, способствующих эффективной подготовке высококвалифицированных дизайнеров одежды для современного производства.

Keywords: innovation, national clusters, preparation of specialists, clothing designers.

Ключевые слова: инновации, национальные кластеры, подготовка специалистов, дизайнеры одежды.

The strategy of entering of Kazakhstan in the number of most competitive countries in the world has become a priority for the national idea of the society development. It poses new challenges to modernize the system of professional education of future specialists.

Science for industry – today this idea is the main strategy in the formation of a new model of preparation of specialists in the education system, creating human capital, which is to a great extent determines the country's economic potential. The most pressing problems is the integration of science and education, development of scientific and educational centers [2], [3].

According to L.N. Khudova, one of the most important and topical directions of modernization of the economy of Kazakhstan are the formation of a national industrial policy; and development of industrial upgrading strategy to the definition of the relevant priorities, goals and objectives on its basis. The Strategy should be implemented in four main areas: Economy, Industry, Science and Management [6].

Over the last ten years, the formation of clusters has become an important task of the state policy of the Republic of Kazakhstan in the field of regional development. Global experience of developed countries proves that clusters are among the effective tools for development of small and medium enterprises [1].

Creating a cluster of light industry becomes the starting point *for the formation of the product of the educational chain i.e. specialists on costume for light industry.*

Textile and light industry is one of the main sectors of the economy, which forms the budget in many countries. For the formation of the economic security of the country, the amount of domestic production should be at least thirty percent to meet the domestic demand, while the textile and clothing industry in Kazakhstan covers only ten percent of domestic demand [1].

Table 1 below shows SWOT-analysis of light industry condition [2], [3].

Table 1

<p>Strengths:</p> <ul style="list-style-type: none"> - the presence of raw materials; - the proximity to the largest markets (Russia, China, India); - growing demand for domestic and global markets; - the presence of transport and energy infrastructure; - the presence of industrial potential; - relatively cheap labor force (in south of the country) 	<p>Weaknesses:</p> <ul style="list-style-type: none"> - low quality of wool and leather raw material; - low level of products competitiveness; - the absence of investment into the sector; - a high proportion of exported products with low added value; - almost complete absence of domestic brands; - lack of qualified personnel; - a significant depreciation of fixed assets
<p>Opportunities:</p> <ul style="list-style-type: none"> - market expansion by entry into the Customs Union of the EurAsEC; - development of industries for the processing of raw materials (cotton, wool, leather); - tolling development, production on tolling; - transfer of technologies through the organization of production using the experience of the technological leaders. 	<p>Threats:</p> <ul style="list-style-type: none"> - the level of production of local products is below the threshold level of economic security; - insufficient attraction of investments into the sector; - strengthening and expansion of the smuggling of counterfeit goods; - high competition from global leaders.

Results and discussion

According to the researchers, to create a sustainable innovation activity trend in light industry it is necessary:

- to implement a complex of measures on legal and organizational support of innovative activity from the side of the state;
- to economically support companies and organizations involved in innovation activities;
- to support innovation activities at different levels;

- to develop international cooperation in the field of innovation [6].

The development of science, engineering and technology in the light industry in the coming years is advisable to carry out in the direction of improvement of process equipment, increasing the use of domestic natural raw materials (wool, cotton), expanding the range and creating competitive products.

Dr. Zhilisbayeva, professor believes that to solve scientific and technical problems and innovative output of light industry and industry for the modern level, it is advisable to carry out the following activities:

1. In order to create high-tech, flexible, environmentally friendly and resource industries; to develop and implement high technologies on the basis of fundamental and applied research in the field of efficient use of natural raw materials (wool, cotton), it is necessary to use the achievements of biotechnology, various types of machinery, chemistry, information technology.

2. To improve the system of certification and standardization, to develop methods and criteria for assessing the performance properties of materials and products. Develop specifications and technical documentation in accordance with international standards.

3. Create major scientific organizations of the industry, with unique capabilities for research, equipped with highly qualified personnel and experimental base.

4. To improve international cooperation with foreign organizations in the priority areas of engineering and technology sector [5].

Industrial science as well as fundamental is currently experiencing a period of deep crisis caused by lack of demand, underfunding, and the loss of scientific personnel for a variety of reasons.

Now it is the time of demanded of science, especially the industry - as a conduit, the connective tissue between the high-tech development of academic, university research and industry. That is why one of the most pressing problems is the integration of science and education, development of scientific and educational centers.

In this regard, some experience gained by scientists of Almaty Technological University. The number of projects developed for obtaining new materials with special properties, as well as new types of special clothing. This direction solves significant technological problems due to the use and reproducible available domestic raw materials, which are currently in a large amount not used and lost. Another important area is the development of criteria and methods for determining the safety of non-

food products, aimed at ensuring and preserving consumer health.

State and prospects of development of industrial science in light industry.

In order to promote promising garment companies Kazakhstan will launch in a program to support the export of goods through the concept – KAZBRANDS from 2016. Kaznex Invest Agency reports that Kazakhstan brand products will appear on four areas. Primarily through the initiative national champions in which 32 companies have been selected. Secondly, the government will support existing exports, with potential growth in foreign markets. The third area involves the promotion of the brand under one of several groups of products according to different sectors - the umbrella brand. Finally, the fourth line will create a unique brand: innovative and high-tech products developed in Kazakhstan with the involvement of multinational companies.

In this regard, some experience gained by scientists of Almaty Technological University with number of projects for obtaining interaction of science and education. Actual challenges reveal two directions in professional preparation of specialists:

- first, in the orientation of professional preparation of specialists at a specific user with a high level of prosperity. In particular, to make clothes for people with non-standard figure, a special taste to single expensive hand-made things, actors, singers, people working in the field of show business or the consumer of the tourism industry. This type of consumer is characterized by a strong personality, originality, uniqueness. Preparation of clothing designers for atelier studios, houses of high fashion, working with individual customers. The level of knowledge involves mainly stylistic erudition, knowledge of hand-made works application and production. Equal importance has the level of synthesis of the social and psychological maturity and the ability of the independent author's vision, thinking, flexible and mobile capabilities to maneuver authoritatively argue on his project.

- secondly, clothing design of for special purposes is of two types - crowd scene for bidding enterprises and limited-edition collections of clothes targeted on requirements for a spe-

cific event or group of people (for example, the Asian Games in 2011, the tenth anniversary of Astana, the crowd scene for the movie Nomad, the Five hundred fiftieth anniversary of the Kazakh Khanate, Tomiris, Zhau Zhurek Myn bala, Aldar Kose, Expo 2017, enlighten and ideological projects, etc.). The basic requirement is a strong personality, attachment to the concept. In this case, the need for production in the creative solution of the current problem is due to the economic utility and socio-political value of the project.

Another branch of clothing design is limited-edition clothing for children from birth to three year's enterprise. Since the physiological need to purchase clothes for this category of children is often manifested, economic value of the project is obvious. The nature of knowledge when designing clothes at fashion designers for a group of consumers, suggests harmonious stylized figurative decision, a sense of color balance, knowledge of graphic techniques, the ability to familiarize creative vision to the utilitarian purpose; production design involves a high level of knowledge in the field of design and technology of tailoring, modern requirements in the field of computer modeling, nesting and technical sketching. Socially significant level of requirements for the production clothing design in professional preparation of clothing designers is of great importance in terms of the ability to predict the success of the project.

According to the vice-president of the Union of Designers of Kazakhstan Ordabayev A.B., success factor in the demand for a specialist in design, particularly clothing design, in modern terms, is the diversity of knowledge, awareness, communication, net-working, capacity flexible and mobile to realize their creative abilities in many areas [7].

The organization of Pedagogical process involves Pedagogical interaction of students, teachers and employers in given Model of Formation of Professional competence (Fig. 1 – model of Formation Professional competence of students - costume specialists) [3].

To stimulate the educational process of clothing designers in universities of Kazakhstan, in our opinion, it is necessary to reorient the process of preparation of specialists from

the creative-empirical to the applied-subject, in line with contemporary technological innovation and market demands. Strengthen the teaching of computer-oriented, creative-technology and commerce forming disciplines to create the conditions for the implementation of exchange projects with real projects for industrial needs [3].

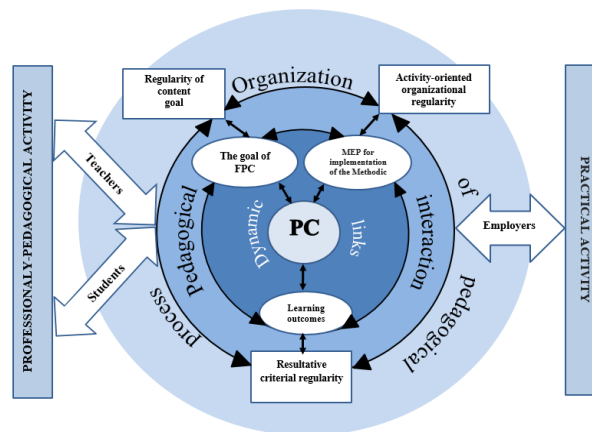


Fig. 1

CONCLUSIONS

Thus, the study of international and domestic experience, the results of many years of scientific research, allow us to formulate the following positive ideas for the formation of social and sought-after *experts in the field of light industry in Kazakhstan in the conditions of modernization of production technologies*:

- a wide range of various forms of improvement and confirmation of experts' professional competence creates a mechanism for licensing and certification, with a centralized national institution - Industry Certification organization.
- the ratio of the results of advanced training and self-education with wages of teachers and social benefits package;
- own development strategies of sector institutions: conditioned by their own method of teaching and the payment system; practice-activity-related project work on orders that have a social, national significance;
- opportunities for international cooperation associated with a large set of entrants coverage and marketing of educational services, staff advanced preparation.

REFERENCES

1. Approval of the Program for the development of light industry in the Republic of Kazakhstan for 2010 - 2014. A.: Resolution of the Government of the Republic of Kazakhstan, 2010. № 1003.

2. Zagidullina G.N., Chepikova E.A. The main problems and solutions in the formation of clusters of light industry in Kazakhstan. 2014. [Electronic resource] / platform for communication - A: G-global.

3. Zhanguzhinova M.Y. et al.. Training of socially demanded specialists in the conditions of industrial-innovative development of the society // Ponte. International Journal of Sciences and Research, 2016. № 72. 12, P.241...262. – Accession: DOI: 10.21506/ j.ponte.2016.12.46 Reference ID: PJ-Z0YU.

4. Zhanguzhinova M.Y., Magauova A.S., Nauryzbaeva A.S. Competence approach in Vocational education of Kazakhstan in conditions of innovational and industrial development of the society // Proceedings of the International Scientific Conference Rural Environ-

ment. Education. Personality. Proceedings of the International Scientific Conference. Jelgava: LLU. 2016. №9, P.128...133. –Accession No. wos: 000391253400015.

5. Zhilisbaeva R.O. State and prospects of development of industrial science in light industry // Proceedings of the International Conference of Innovative development of food processing, light industry and the hospitality industry, 2014. A.: ATU. № 1. P. 12-14.

6. Khudova L.N. Features of light industry in the Republic of Kazakhstan in the modernization of production // Proceedings of the International Conference of Innovative development of food processing, light industry and the hospitality industry. A.: ATU. 2014. № 1. P. 6-10.

7. Ordabaev A.B. The history and theory of design / Abstracts of lectures for AMPD, 2014. A.: ATU. P.8...12.

Рекомендована отделом организации научной работы АТУ. Поступила 01.04.19.