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Effective Interaction between a Vocational Institution and Food Companies Aimed at Sustainable Development of the Region

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Abstract: The modern vector of socio-economic development is defined by the sustainable development paradigm that sets trends in the labour market and education. The lack of qualified, competent, and competitive specialists in the food industry is currently one of the biggest issues in the Republic of Tatarstan, which has a big impact on the growth and economy of the region and the entire nation. This paper's applicability stems from the significance of educating qualified specialists in the food industry and the connection between educational institutions that train mid-level specialists, professionals from the food industry, and food processing facilities. The project featured in the paper was created and carried out at the International College of Service, one of the top vocational schools in the Republic of Tatarstan. The paper details the project's content, which was created in collaboration with top food industry experts. The paper reveals the priorities and potentials of phased bilateral monitoring of the students' education quality to improve their skills and competitiveness. It describes the practice of incorporating further professional education to raise students' level of proficiency in the chosen specialization beginning in their first year of study for sustainable development.

1 INTRODUCTION

Currently, educational institutions are faced with the issue of proactive training of indemand specialists. And since sustainable education is based on an approach aimed at developing flexibility, adaptability, readiness to act taking into account highly dynamic changes, participate in planning and implementing social development, as well as predict the consequences of the actions, the implementation of this approach fully meets both the demands of the modern labour market and the needs of young people (Akhmadullin and Fatkhullina, 2020).

The paper's applicability is due to Russia's current economic and talent landscape. Enhancing the effectiveness of the relationship between educational institutions and production is crucial as it will boost the competitiveness of future specialists, in the long run enabling businesses to hire skilled personnel (Osipov, Ziyatdinova, Dulalaeva, Fakhretdinova, 2022). Currently, students' professional development is given a lot of attention. Both the administration and faculty of the International College of Service based in Kazan place special emphasis on the education of future specialists. They create projects that involve leaders and key representatives from industrial catering businesses, developing techniques and resources for quickly training specialists without sacrificing educational quality. It is crucial for a school to turn out professionals who are capable of working in businesses and who can use cutting-edge technology to advance food processing facilities, thus ensuring the sustainable development of the region (Shageeva, Kraysman, Gorodetskaya, 2013).

2 MATERIALS AND METHODS

The methods of theoretical and analytical level were used to study the literature on research issues. The paper discusses the interactions between educational institutions and top food facility experts for the sustainable development of the region. A unique

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project was created to carry out this objective, involving:

- excursions for students to food enterprises;
- workshops with leading specialists for students, job training instructors, special course teachers;
- active participation of top experts in updating the list of dishes in the professional module curriculum as well as in the preparation and development of the practical part of the graduation paper (starting with the choice of the subject providing for its relevance and practicability in this production);
- on-site internships of special course teachers and job training instructors.

The International College of Service has introduced the Professional Degree program. This program is aimed at teaching students quickly and efficiently the skills they will need in the labor market. This enables providing the Republic with middle-level labor force. As part of the federal project, the following professional academic programs will be taught at the college: Cooking and Confectionery, Pastry Cook, Beauty Indus-try Technology. The students benefit from the reduced training time and enhanced hands-on experience (Giliazova and Valeeva, 2021).

3 RESULTS AND DISCUSSION

For the mutual ned Consent. The integration of production and education is important to the state. Without competent skilled personnel, industrial progress is out of question. In turn, it is quite difficult to build an effective innovative model of practice-oriented education (Kraysman, Shageeva, Pichugin, 2022). For this very reason, more than 250 food facilities, confectioneries, bakeries, and food departments are involved in the project's implementation to ensure that the goals are carried out effectively (Starshinova and Kraysman, 2022).

Both the educational process and the growth of the food industry will benefit from this partnership between food businesses and educational institutions. Training skilled specialists in demand on the labor market is an important component of modern education, which largely determines the social and economic well-being of Russian regions (Kraysman., Shageeva, Ziyatdinova, Pichugin, 2023). The modern vector of socio-economic development is defined by the sustainable development paradigm that sets trends in the labor market and education. Modern social trends are evidence of the growth of intellectual potential, with educational institutions holding the top spot in this regard (Shakirova, Nikitina, Fatkhullina, 2022).

As education moves toward sustainable development, academic institutions must build a system of "skills of the future" in graduates, that will enable them to succeed in the workplace, make plans, and encourage self-development in line with those plans.

A person brought up in a sustainable education system has:

- an understanding of the value of man, humanity, nature, life, and sustainable and safe education;
- knowledge, skills, and expertise necessary to carry out professional activities effectively and with the desire to minimize damage to the social, information society, and the environment;
- developed systemic competence in the sustainable world development concept.

Academic institutions need to form in their graduates a system of skills that will enable them to succeed in the workplace, make plans, and encourage self-development in line with those plans.

From the point of view of the sustainable education and development concept, educational institutions can be divided into several groups:

- socially focused; mission: co-creation of knowledge and transformation of the society to enhance sustainability through social well-being and human development; key disciplines: Social Sciences and Humanities;
- environmentally focused; mission: co-creation of knowledge and transformation of the society to ensure sustainability by improving the environment; key disciplines: Natural Science and Engineering;
- economically focused; mission: co-creation of knowledge, strategies and inventions to achieve sustainability through economic development and entrepreneurship; key disciplines: Social and Natural Sciences (Valeyeva, Kupriyanov, Valeeva, Kraysman, 2020).

Future specialists' theoretical and practical training is the subject of in-depth research because the existing approaches are antiquated and have drawbacks. Educational institutions and businesses do not interact on a systematic basis. The labor market and businesses in the food industry both suffer as a result of this situation not ensuring sustainable development of the region. (Shageeva and Kraysman, 2021].

Kazan and the region have enormous potential for the growth of the catering industry. Now there are 2,241 cafes and restaurants in the city. As of 2022, there were 2,747 open positions for food industry

specialists (data provided by Kazan department of the Federal Service for Labor and Employment) (Rubin, 2016).

The project will address the problem of making up for the shortage of personnel with the minimum turn-out of food industry specialists. The new format has been created to draw in top experts, engage in conversation, address current issues facing the food industry, and find ways to help students become more professional while they are studying, which in the long run will facilitate the graduates' onboarding process.

In order to address these issues, the International College of Service has created a project that aims to boost students' competitiveness by interacting with caterers and food industry businesses. It should be borne in mind that the following elements are necessary for the project to be implemented successfully:

1. The demand from food processing plants and industrial catering enterprises managers for competitive specialists familiar new cutting-edge work technologies. This need is created as a result of competition in the goods and services market.

2. The availability of professionals who can significantly boost the competitiveness of businesses operating in the food industry. Educational institutions should be motivated to train highly skilled and competent workers who can work with cutting-edge technologies, and most importantly, should have the ability to do so.

3. The next prerequisite is the situation when the republic's industrial food business owners and educational institution leaders are motivated to address the personnel shortage issue.

The developed project cannot be put into action if one of the tasks is not completed; consequently, one of the urgent tasks is to determine the degree of readiness of industrial enterprises and food plants for active cooperation with educational institutions that carry out the training of paraprofessionals (Kondratyev, Galikhanov, Osipov, Shageeva, Kaybiyaynen, 2019). The project's unique feature is the step-by-step tracking of future specialists' professional development levels throughout their entire training period. The work within the project is as follows:

1. First year students take the exam on the easiest task from the "Professionals" competitive task in the Cooking competency. The results of the input control are recorded. Since school subjects predominate in the students' first year of study, they are invited to take supplementary courses in a related specialty. This course is aimed at acquiring basic skills in the future specialty and increasing interest and motivation. The name of the program is The ABC of Cuisine. The program includes 36 hours of theoretical basics and practical classes.

Students may opt to take further education courses in the following areas: National Cuisines: Italian cuisine, Japanese cuisine, Georgian cuisine, Tatar cuisine. They are also offered additional education courses in such areas as Waiter, Bartender, Cater-ing, Carving. When the further education courses are finished, students take an exam and complete a practical task for one module, but a more difficult one, the results also being recorded.

2. Additionally, students begin taking professional modules in their second year of study in accordance with the curriculum, but they also participate in professional training sessions and hands-on workshops led by top food industry figures and competitors in the Professionals championships. The final exam requires students to complete a practical task from two more difficult modules. The test results are recorded:

1. In the third year, students start intensive industrial apprenticeship at the top Kazan companies. At the end of the year, students take a demonstrative exam, which includes four modules. The results of the demonstration exam are recorded.

2. Fourth year students have intensive industrial apprenticeship working together with company employees.

At the end of the training, students prepare for the state final certification, prepare a project with cutting-edge food industry solutions, and take an exam with all modules of high complexity. The tasks of all modules correspond to the international technologies of the Professionals Championship with summing up according to the Professionals criteria.

To improve the professionalism of future specialists, heads of companies and third-party experts are engaged, and two-way step-by-step monitoring is also being introduced, which allows determining the professional skill level throughout the training period (Kondratyev, Galikhanov, Osipov, Shageeva, Kaybiyaynen, 2019). The goal of the project is to engage leadership, discuss issues that are currently affecting the food industry, find ways to support students in becoming more professional while they are enrolled in school, which will ultimately speed up the onboarding of graduates.

The following activities are planned as part of this project to raise the professionalism and competitiveness of future specialists:

- participation of restaurant service representatives in round tables;

- attendance at extracurricular events (business lunches, seminars for students);
- workshops on current and modern issues for students, teachers of special disciplines and masters of industrial training;
- participation in professional skill championships as third-party experts;
- membership in the board for the defense of diploma projects.
- opening of new laboratory complexes and vocational training facilities (VTF);
- students job referral at the VTF when they are free from the educational process. This practice will allow for training competent and production-specific students. The college also intends to open new laboratories as a base for students to gain professional skills on modern equipment. All laboratories and training grounds were de-signed to reduce electricity consumption, labor, and working time, which are key components of lean production. Below is a description of laboratories for food training areas.

Laboratory No. 1. Training Restaurant Kitchen. In this laboratory, all training conditions will be as close as possible to the real working environment at the employer's workplaces. This laboratory will have 15 workstations, allowing for more students to be taught in less time.

This laboratory will have a workshop production structure. The workshop structure is used in enterprises working on raw materials, with a large production volume. The project provides for such facilities as pre-cooking, hot meal, cold meal, and flour shops. Such layout of the restaurant's training kitchen will allow students to gain the skills required at each production cycle (Fakhretdinova, Zinnatullina, Galeeva, Valeeva,2022).

Besides, the design of this facility takes into account the HACCP system. This is a food production and catering quality system. The abbreviation stands for Hazard Analysis and Critical Control Points. Training at this facility ensures that students are able to get acquainted with the entire restaurant process, starting with the rules for raw material acceptance through to the sale of finished products to the consumer.

Laboratory No. 2 Service Organization. This laboratory works together with the Training Restaurant Kitchen and is designed for 12 workplaces. The Service Organization Laboratory hall was also designed with the objective of creating conditions that are as close as possible to a restaurant's real working environment. The Service Organization Laboratory is designed so that students can study and organize a full hospitality cycle. The project provides for a 150 seat hall, a modern bar counter, and all necessary equipment and utensils for comfortable training.

The facility will allow handling the following types of reception:
- banquet with full table service;
- banquet with partial table service;
- buffet banquet;
- cocktail party;
- buffet service;
- gala night service;
- business lunch service;
- catering.

Students will be able to use the same facility to learn how to serve at the bar, including flair bartending and mix drink show, demonstrating the preparation of:
- author's drinks;
- preparation of cold and hot appetizers;
- hot sandwiches;
- confectionery.

Upon the completion of traineeship at this training ground, students will have professional skills, be able to apply consumer service techniques in practice, know the rules for servicing various banquets and events, as well as the basic etiquette rules and bar service techniques.

Laboratory No. 3 Bakery, Laboratory No. 4 Cooking. These laboratories have an island design. This layout provides numerous benefits while also saving space. The island type of workplace layout is an arrangement on a free area in the middle of the laboratory, providing full access from all sides. This type of layout is very popular in world class cooking schools.

All conditions are created in these laboratories to ensure maximum comfort for students during various master classes (from chefs and leading restaurant service specialists), as well as during demonstration laboratory work with vocational training instructors and specialty courses teachers.

This type of layout is also convenient for the faculty, as when practicing practical skills, all students are in front of the teacher and there is no need to walk between the rows to control the correctness of the tasks assigned. It is worth noting that all the furniture in these laboratories is modular and, if necessary, can be rearrange for different-format classes.

In these laboratories, students will be able to work out on a practical level the following types of work:
- arrange the workplace correctly;
- work with different types of dough;
- prepare fillings and decorative elements for bread, bakery, and confectionery

- control the baking quality;
- check finished products by their organoleptic parameters (taste, smell, colour);
- monitor the amount and types of pastries;
- know the temperature conditions for processing and cooking;
- high level skills of cooking a variety of dishes;
- Experience of sparing consumption of products and raw materials;
- Ability to plan a menu and prepare a list of necessary products.

These laboratories will help reinforce the bakery skills (bread, croissants, brioches, pretzels, etc.), and the skills of cooking various types of dishes (soups, sauces, main courses, salads, hot and cold appetizers), and knowledge of the world's national cuisines.
Laboratory No.5 Restaurant Training Ground. This type of equipment included in the laboratory description is unique as no other educational institutions in the Republic have it and the process in it is experimental.

The Restaurant Training Ground will be equipped with an automatic line for the production of filled yeast-leavened and puff pastry with stuffing. The equipment versatility and modularity allows for a wide range of products – buns, rolls, pies, strudels, puff pastry, and much more. The line dose can handle a variety of fillings: poppy, vegetable, meat, liver, nut, as well as jam, fruit paste, etc. The line is easy to operate, significantly automates the production process, and ensures a high level of product quality. This laboratory will have a separate entrance for students, in-house storage facilities, a room for packaging bread and bakery. Students' work on this type of equipment opens up new employment opportunities and offers them an advantage when applying for jobs.

Such a relationship between students and representatives of the food industry inspires students to actively learn and piques their interest in the profession of choice, both of which have a positive impact on future specialists' professionalism and competitive-ness, their focus on sustainable development (Tsareva, Semushina, Bogoudinova, 2022).

4 CONCLUSIONS

Students enrolled in the new program are in demand in the labor market because they are skilled specialists trained to work at industrial enterprises. They are successfully employed as early as during their studies in the 2-3 year as part of an individual training plan, working in their free time. It is also worth noting that graduates actively develop their competencies already while working at food facilities and after a while get promotions including a pay rise.

Surveys show that master classes, on-site internships for teachers and students, seminars, and business lunches for students with food industry members all have a positive impact on the development of professional competencies. Such a relationship between students and representatives of the food industry and an individualized approach to each student inspires students to actively learn and piques their interest in the profession of choice, both of which have a positive impact on future specialists' professionalism and competitiveness. The International College of Service offers students within the framework of professional programs a comfortable learning environment. Their interest in the chosen profession is preserved and maintained as they start to acquire professional knowledge as early as their first year of college, first in supplementary vocational courses, then in special subjects depending on their major having focus on sustainable development. Such training forms in graduates a system of "skills for the future" that will enable them to succeed in the workplace, make plans, and encourage self-development in line with those plans.
Close cooperation between educational institutions and industrial catering businesses is required by the current environment and serious organizational efforts are required to establish an efficient dialogue between them, since it is the most important factor in improving the quality of paraprofessional training. The most important event with-in the framework of the employment policy should be a systematic development of the procedure for interaction between universities and employers, primarily at the regional level. This will ease labor market tension, lower unemployment, increase business efficiency, and boost the domestic regional product, thus ensuring the sustainable development of the region.

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