

EXPERIENCE OF COOPERATION BETWEEN HIGHER EDUCATION INSTITUTIONS AND BUSINESSES AND LESSONS FOR NHA TRANG UNIVERSITY

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ABSTRACT

Improving the quality of training at Nha Trang University is very urgent in the current period, when the university training activities are operating and developing strongly in order to affirm the prestige and position of Nha Trang University. Therefore, this article used a qualitative method that is the collection of information and secondary data to summarize the cooperation model between Nha Trang University and businesses that use good learners all levels of training systems of the University. The article has focused on presenting the theoretical basis of the problem that needs to be researched, introduced and analyzed the current situation of training linkages between the school and external enterprises, thereby providing a model of linkage and other solutions groups of measures to implement this model in order to improve the training quality of Nha Trang University in the coming time.

Keywords: Quality of training; Higher education institutions; University - Enterprise Cooperation; Nha Trang University.

1. INTRODUCTION

In Vietnam today, the change of training methods according to the credit system and output standards at higher education institutions has been increasingly demanding training links between the University and enterprises. Vietnam has many cooperation models between higher education institutions and businesses, but most of the models are small, unsystematic, and heavily theoretical. and there are no specific mechanisms to guide the application and practical implementation of the model. In particular, current cooperation models have not really taken into account market factors and the interests of stakeholders (universities, businesses, learners, employees, managers...). Therefore, it leads to a lack of effectiveness in training at higher education institutions, and a lack of practicality in implementation at enterprises.

Meanwhile, the need for more productive and technologically qualified labor to replace cheap unskilled labor is becoming increasingly urgent in the context of deep integration of the regional labor market. and global as well as the strong effects of the 4.0 revolution. This situation requires a real change in the quality of human resource training activities in the ecosystem between higher education institutions and enterprises - one of the most important and breakthrough solutions. to promote cooperation between universities and businesses.

The predecessor of Nha Trang University was the Faculty of Fisheries, under the Hanoi Academy of Agriculture and Forestry, established on August 1, 1959, then separated and named the School of Fisheries on August 16/ 1966. In 1976, the School moved from Ho Chi Minh City. Hai Phong and City. Nha Trang (Khanh Hoa province) and changed its name to University of Seafood (1977) and University of Fisheries (1980). According to Decision No. 172/2006/QD-

TTg of the Prime Minister, from July 25, 2006, the University officially named “Nha Trang University”. (Nha Trang University, 2022). Thus, it can be seen that training high-quality human resources to meet social needs has been an important task of the University. In particular, an important task for the University in the current context is to train learners in connection with business practices, especially for industries that require learners to have a process of approaching professional practice. very early on.

With 20 faculties, institutes, research centers and technology transfer centers, Nha Trang University currently has about 15,000 students studying, coming from all parts of the country and many countries around the world. Nha Trang University has twice been recognized as meeting national accreditation standards. For the first time, in 2009, Nha Trang University was one of the first 20 universities in the country to be recognized by the National Council for Education Quality Accreditation to meet educational quality standards. For the second time, the School was recognized by the Center for Education Accreditation (National University of Ho Chi Minh City) to meet the educational quality standards on January 31, 2018. The university has continuously maintained the position of Top 30 excellent universities in Vietnam in the Webometrics rankings from 2021, and ranked 190/3,828 in Southeast Asia. According to the plan by 2025, all the training programs of the University will complete the self-assessment and about 50% of the training programs have been accredited nationally and internationally.

Currently, Nha Trang University is training 50 majors / majors at the undergraduate level, 19 at the master's level and 11 at the doctoral level. In addition, the University also participates in implementing many vocational training programs, short-term training courses, summer programs ... to meet the needs of society. Human resources are also a strength of the University with over 650 lecturers, including nearly 30 Associate Professors; nearly 170 PhDs; more than 350 masters, of which more than 40% of staff and lecturers are trained in developed countries.

Nha Trang University also pays special attention to expanding cooperation in training and scientific research, considering this as one of the development focus of the University. The University has built many cooperative relationships with domestic and foreign partners, especially in the field of fisheries, the University has relationships with most schools and institutes with advantages in training and research in fisheries. In the world. From the achievements gained over the years, Nha Trang University continues to take steady steps on the path of fulfilling its mission of training high-quality human resources, transferring technology and providing professional services. multi-disciplinary professional services, meeting the increasing socio-economic development needs of the country and international integration.

From the above theoretical and practical basis, the authors choose the research topic: “Experience in building a cooperation model between higher education institutions and enterprises and lessons for the Nha Trang University”.

2. THEORETICAL BASIS

2.1. Overview of training cooperation

According to the Vietnamese dictionary, cooperation is sticking together to complement each other or do something by the way of favorable conditions (Institute of Linguistics, 2008).

Cooperation is an action where parties work together, help and support each other in work or any field to work towards a common goal.

Training human resources directly in production and services with competence (focusing on practical capacity) and qualities commensurate with training levels: Elementary, Intermediate, College, University according to regulations of the Education Law.

Training cooperation between the University and enterprises is a form of training organization on the basis of cooperation between the University and enterprises in the training process, conducted both at schools and at enterprises. In which, the University plays the leading role, goal-oriented enterprises, supporting the training process, assisting in the evaluation and control of training quality.

The two sides integrate their advantages for the most effective training: education and training schools, enterprises provide a practical environment for students to practice production with modern equipment and technology. grand.

The school plays a leading role in the process of training organization, proactively planning, content methods, facilities, training management process.

Enterprises contribute to the orientation and set the minimum requirements for knowledge, skills and attitudes of technical human resources. Enterprises can participate in the process of content editing, program development, method improvement, program evaluation and control as well as the quality of training products, and most importantly, together with the school effort. job placement for students after graduation.

Dual training: Dual training or dual training system can be defined as a system that pays special attention to the form of organization including two places of study: School - Enterprise.

In the dual training model, the division of learning content is quite clear: The school teaches the theory and the enterprise is responsible for the practice. This model is quite popular in Germany, Austria, Switzerland.

2.2. Overview of the cooperation model between higher education institutions and businesses

When talking about the model of linkage between schools and enterprises in training, the first thing to mention is the concept of the model because by understanding that concept, we can design the structural components. its inside.

There are different conceptions of the model:

In the Vietnamese Dictionary 2007 edited by author Hoang Phe, the model has two meanings:

A model is an object that has the same shape but is scaled down many times, simulating the structure or operation of another object for convenience of presentation and research. For example: airplane model, new urban area model.

Model is a very concise form of expressing the main characteristics of an object in a certain way to study that object. For example, the model of a single sentence, the working model of a text analysis program (Phe, 2017).

According to the dictionary of the Institute of Linguistics: "A model is a representation of an idea that is approximately achieved by simulating, imitating a real object, or by relying on a set of features to be captured in order to approach a perfect state" (Institute of Linguistics , 2008). Thus, in a narrow sense, a model is a miniature model of a large object, for example, a training machine in vocational training such as a model of a car to practice driving, a model of an electrical system in a ME-1000 lathe; In a broad sense, the model is the typification of the interaction relationships between the parts of an object or between one thing and another, for

example: school model, cooperative model, model model. linkage model between 4 houses (state, scientists, farmers, enterprises).

From what has been presented above, the authors give a concept about the model: “The model of linkage between schools and enterprises in training is a model designed according to a certain idea in which members Its structural parts (elements) have close relationships with each other, interacting with each other”.

3. DOMESTIC AND INTERNATIONAL EXPERIENCE IN COOPERATION BETWEEN HIGHER EDUCATION INSTITUTIONS AND ENTERPRISES

3.1. International experience

(1). Triple Helix model of university-enterprise linkage in research and technology transfer
Etzkowitz & Leydesdorff (1995, 1996, 1997, 2000, 2012) introduced the concept of "Triple Helix model of the relationship between University - Enterprise - Government" in the mid-1990s for the purpose of describing and describing modeling the relationships between universities, business and government, and the internal transformation of these institutions in knowledge-based economies (Figure 1.1).

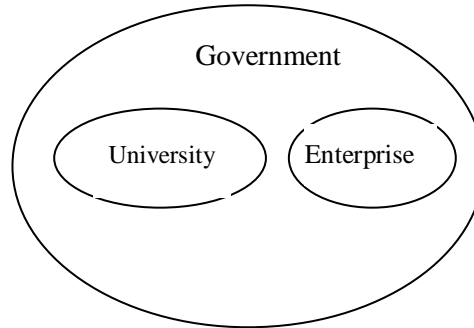
The Triple Helix I model is a static model of the relationship between university, business and government. In this model, the state embraces and guides the relationship between universities and enterprises. This pattern appears clearly in the countries of the former Soviet Union or Eastern European countries. Weaker versions of this model can be found in policy in Latin America and even some European countries such as Norway (Etzkowitz and Leydesdorff, 2000).

The second model is the “liberal” Triple Helix II model of the relationship between university, business and government. This model consists of separate, clearly demarcated organizational blocks.

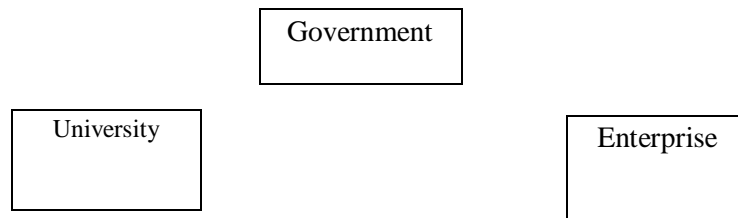
The third model (Triple Helix III) is considered to be the core of Etzkowitz and Leydesdorff's theory of the "Triple Helix model of the relationship between university, business and government". This model consists of overlapping organizational blocks, in which one organization can perform the role of another through cooperative activities (Etzkowitz and Leydesdorff, 2000). Each organization retains its distinct features and main functions while performing the role of another actor (Etzkowitz, 2003). Thus, universities can perform business functions such as introducing, promoting knowledge and creating new companies and, respectively, businesses can carry out academic tasks, share knowledge with each other (Mowery and Sampat, 2005).

In this sense, the model provides a conceptual framework describing the relationship between universities, firms, and government, a key component of national innovation systems (Edquist, 2005). The Triple Helix model is seen as a complement to the national innovation system approach. In fact, authors Parayil & Sreekumar (2004) describe the Triple Helix as a stylized version of the national innovation system (NIS). However, Etzkowitz & Leydesdorff (2000) emphasize the difference between the Triple Helix and the national innovation system.

Stage 1 model:



Stage 2 model:



Stage 3 model:

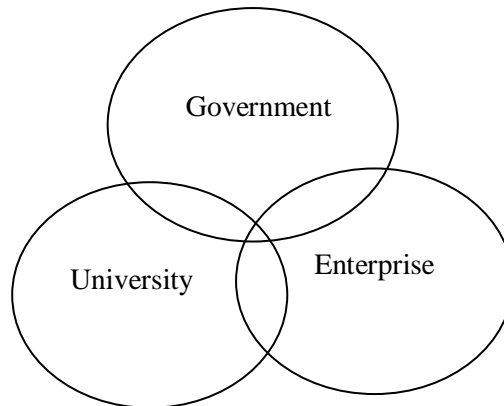


Figure 1 . University - Enterprise - Government linkage models

(Source: Etzkowitz, & Leydesdorff, (2000))

In the national innovation system, enterprises play a pioneering role in implementing innovation. And the two scholars also contrast the Triple Helix with an earlier model of university, business and government relationships, the “Sabato Triangle”. In the “Sabato Triangle”, the state plays an important role, leading innovation activities (Sabato, 1975; Sabato and Mackenzi, 1982; quoted in Etzkowitz and Leydesdorff, 2000).

(2). The model of cooperative training between schools and businesses at Vancouver Island University

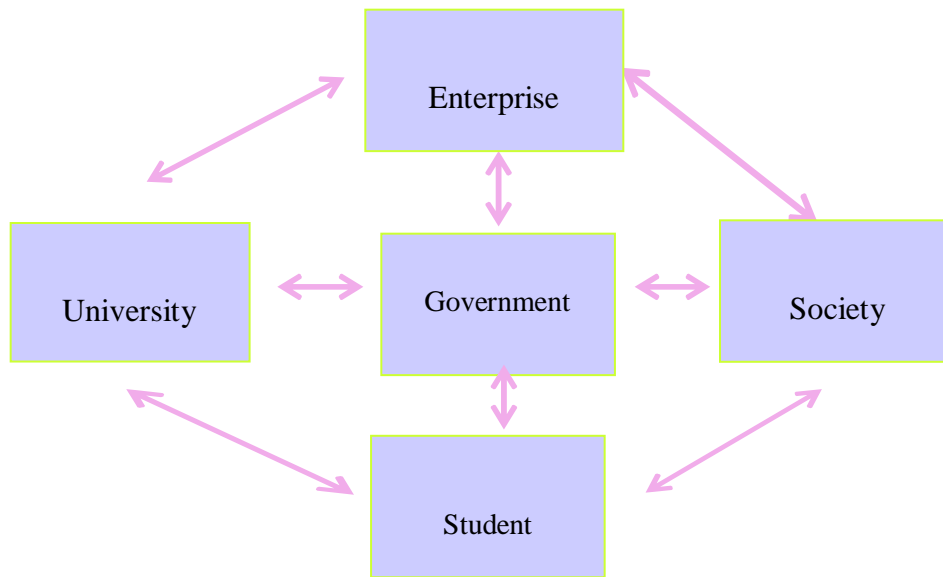


Figure 2: Model of Vancouver Island University

Through the study of domestic and international models of training cooperation between the School and Enterprise, each school is very different. Particularly, the University of Humanities is a relatively specific training school, there are many disciplines to meet human resources for the civil service, but there are also many training disciplines to meet the open needs of the society, so the choice of models is also very flexible. activities to satisfy the maximum needs as well as make the most of the resources of the parties.

(3). Model of the innovation linkage system

National Innovation System (NIS): The concept of NIS was first introduced by RR Nelson, Chris Freeman and BA Lundvall to create a basis for the Government to develop strategies and implement policies. books to enhance R&D.

With its rapid dissemination to inform decision makers around the world, NIS has been used in major countries such as the US, Japan, Russia, Brazil, South Africa, China and India. Therefore, there are also many concepts of NIS introduced.

American authors focus on science and technology policy research, tending to analyze NIS in a narrow sense. They see "NIS as merely a continuation and extension of previous analytical works on national science systems and national technology policy" (OECD, 1997). The focus is on emphasizing the systematic relationship between businesses, universities, and research institutes in R&D efforts with the government.

Chris Freeman (1987), a network of government and private sector organizations that work and interact to create, import, improve, and disseminate new technology (OECD, 1997) .

Lundvanll BA (1992), Parts and relationships interact with each other in the production, dissemination and use of new knowledge, bringing economic benefits. This knowledge is imported into, or derived from, within the country (OECD, 1997) Nelson RR (1993), A set of interacting organizations that have a decisive influence on the innovation activities of domestic firms. (OECD, 1997).

Patel and Pavitt (1994), National organizations, their incentive structure and qualifications affect the rate and direction of technology learning/research (or the number and types of activities) action to bring about technological change (OECD, 1997) Metcalfe (1995), A collection of disparate organizations, joint or individual, that contribute to the development and dissemination of new technologies; form the basis for policy government planning and implementing innovation policies It is a system of interrelated organizations to create, store and transfer knowledge, skills... about new technologies (OECD,1997)

According to the OECD (1997), NIS is a system of agencies in the public and private sectors, whose activities aim to discover, introduce, transform and disseminate new technologies. It is a reciprocal system of public and private enterprises, universities and government agencies, aimed at the development of science and technology on a national scale.

In fact, NIS's approach to technological innovation requires a combination of internal and external factors, linking R&D activities with socio-economic development activities with the same system. A national system consisting of business, universities, government and market factors that work together to meet demand for acceptable products and services (OECD, 1997).

3.2. Domestic experience

(1). Training model of cooperation with enterprises at the University of Economics Ho Chi Minh City

In order to well implement the training goal according to social needs, in the past time, although there has not been a specific survey and analysis on human resource needs and necessary quality of each field serving the economy. national economy, but the University of Economics - Ho Chi Minh City also has many practical solutions to train quality human resources to provide for society. Training according to social needs is a central task, but practical training content is an extremely important task in order to provide quality products for society. Therefore, in the past time, the University has gradually worked in association with enterprises with the goal of best meeting the needs of users for its training products.

Some activities linking the University with the Enterprise include: Coordinating companies and units to organize skills training courses for students.

Coordinate with companies and businesses to teach practical knowledge to students in extracurricular programs.

Organizing forums, exchanges and direct dialogues between businesses and students.

Organize career orientation activities.

Coordinate with companies and professional units to organize academic competitions.

Coordinate with companies and businesses to organize material support for students.

Coordinate with companies to organize internship recruitment programs for students

(2). Cooperation model at Ho Chi Minh City University of Technology and Education

Currently, the school is carrying out a number of cooperation activities as follows: (1) Cooperation on the goals and contents of the training program; (2) Cooperation in organizing the implementation of the training process; (3) Collaborative assessment of the training process.

These three stages have a reciprocal relationship, complement each other, influence each other, are inseparable from each other and are complementary and perfect conditions for the remaining stages to take place in accordance with actual needs. Combining these three fields together creates the 3 sides of a triangle in the cooperative training model. This model is organized and implemented at enterprises or at schools.

(3). *The model of training cooperation between schools and enterprises at Ho Chi Minh City University of Technology and Education*

In the model of training cooperation between schools and enterprises at Ho Chi Minh City University of Technology and Education, there are 2 components from the perspective of 2 subjects, in which:

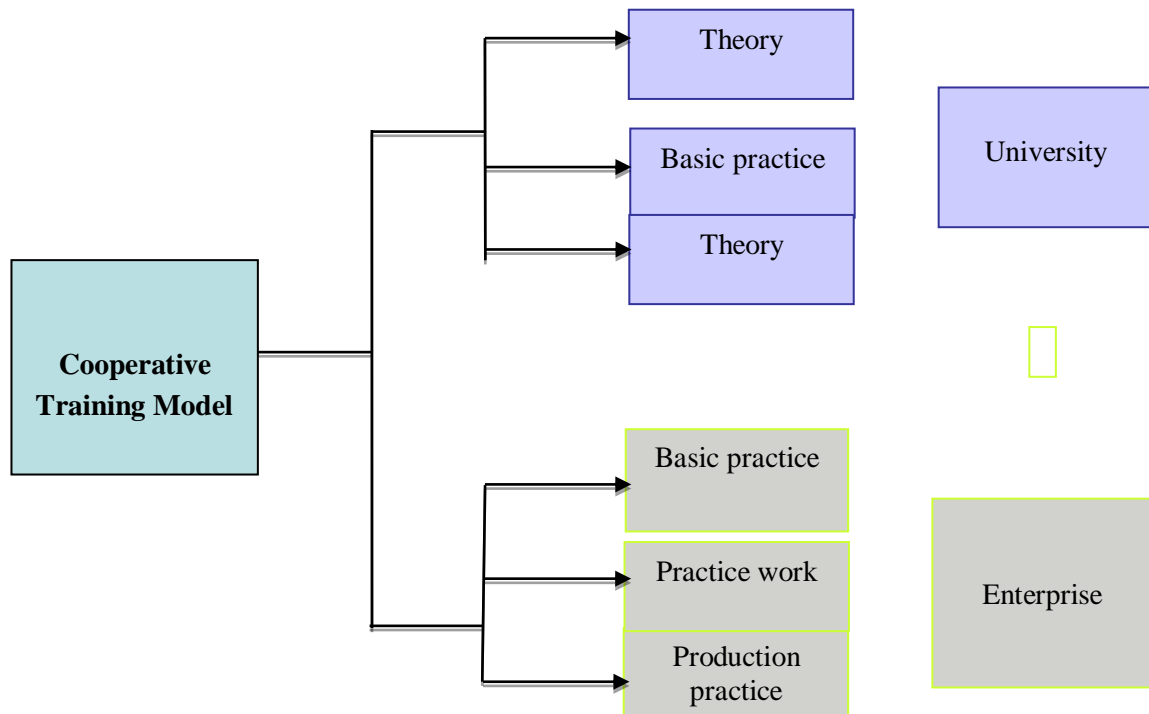


Figure 3: Overall model of the cooperation relationship between Schools and Enterprises at Ho Chi Minh City University of Education and Technology

(4). *Dual training model (Dual System - Germany)*

Dual System Training (Dual System Training)

Training under the dual system introduced by German researchers: Maslankowski, Lauterbach, Hegelhemer, Zedler, Jurgen W. Mollemann. This is a basic training method that was formed and developed in Germany for the purpose of training for businesses. The name of this system is parallel training, the German name is "Dual System" used by the German pedagogue Heinrich Abel in 1864 and popularized until today. In addition to the English name, this training system is also known as bilinear training, parallel training, and dual training.

This system was born to harmonize the monopoly of vocational training of enterprises and state management with the orientation of "comprehensive training".

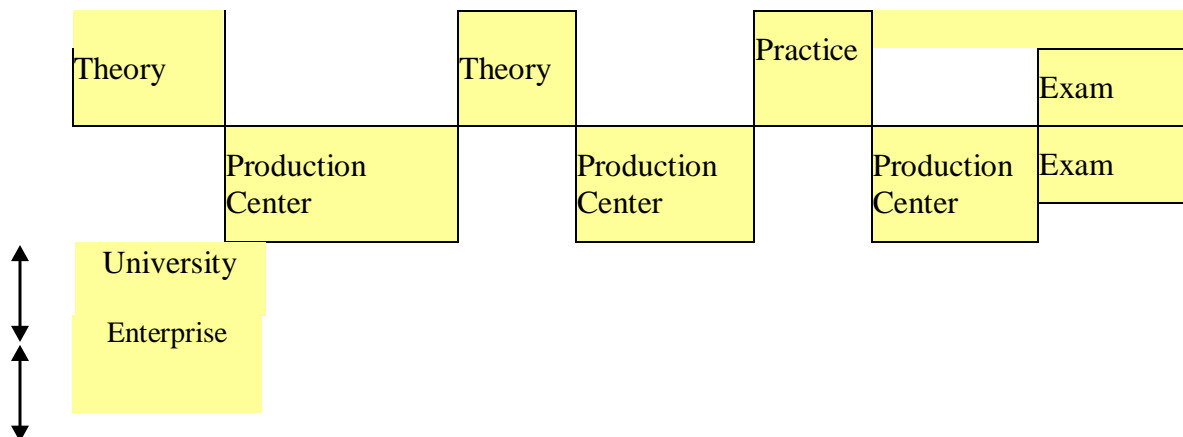


Figure 4: Modeling dual training

(5). *On the Job - Training model - Australia, Japan*

On the job training (OJT) model is an important method for people to acquire work-related knowledge and skills because it is planned, organized and guided. at the employee's workplace. OJT is the first method used to improve skills and increase productivity. It is suitable for developing proficiency skills that are consistent with the learner's occupation, especially work that is closely related to learning and requires its own equipment and facilities.

The best difference (for example, between OJT and Informal Learning) can be recognized immediately in the workplace.

+Advantages

Training can be timed as appropriate.

Trainees have many opportunities to practice immediately and get immediate feedback on their work results. Through progress in the learning process, learners feel confident encouraging them to work with higher results.

Training workers in their own working environment, with similar equipment and instructors, helps them to gather practical experience and the standards of the job itself.

- Managers or supervisors can assess improvement and progress over time and this makes it easier for them to recognize ongoing problems and quickly resolve them.

- Apprentices feel confident that they are doing the right thing when they are guided and supervised as they proceed with the work.

+ Disadvantages

Teaching (coaching) is an innate technical skill, i.e. training will be substandard if the trainer does not have or has poor communication skills.

Trainers may not have enough time to fully teach learners which means training is of a low standard and learning may be only half achieved.

4. LESSONS LEARNED FOR NHA TRANG UNIVERSITY

On the basis of the above concepts, the authors propose the concept of cooperation model between Nha Trang University as an enterprise as follows:

The cooperation model between Nha Trang University and businesses is a voluntary interaction with a purpose and specific content between Nha Trang University and businesses to bring benefits to the parties, contributing to improving the quality of life. High quality training (Outputs of the University are recruited by enterprises)

* *The main contents of the cooperation between the University and the Enterprise:*

- Cooperation in training activities (TCA)

+ School knowledge equips students to meet practical needs. The design of training programs must be derived from the needs of stakeholders, regularly updated and adjusted to suit new requirements.

+ The school invites speakers from businesses to teach, exchange, and share corporate culture, requirements and development orientations of enterprises. By inviting experts from businesses, it also contributes to increasing the practical experience for learners, and at the same time helps learners access new requirements and new technologies from the human resource user unit.

The course content helps students develop skills that can be applied in the real world. The development of course content is based on the output standards of the training program and the output standards of the module designed with the output standards of knowledge, skills and self-control and self-reliance. in charge of.

+ The school introduces internship units to students. It is the responsibility of the University to ensure the learning conditions for students to achieve the goals and outcomes of the training program. Therefore, the introduction of internship units to students is not only a commitment of the school to learners but also to help the school better control its training results.

+ Students can _ practice, practical experience at the enterprise. Application-oriented training requires experience, professional skills are focused. Therefore, it is necessary to have adequate facilities and classrooms for professional practice. In addition, there should be close cooperation with businesses to create opportunities for students to learn and experience better in the real environment.

+ Students actively participate in activities organized at/by the enterprise. Through these experiential activities, it helps to form a positive attitude and know the right career direction.

+ Students comply with the regulations of the enterprise. Through learning activities and experiences at enterprises, students form their own discipline, seriousness in work and adaptability to the organization.

+ Students always actively explore, listen, learn and critique with business experts. Enterprise is a good environment, a good opportunity for students to have a sense of self-improvement and self-affirmation.

- *Cooperation in service operations (CSA)*

+ Get shared by experts about the company's culture. Through that, it helps students to better understand the business as well as see the importance of organizational culture. This is essential to help students integrate faster with the business.

+ Students can participate in the program "Job Day". Through this program, students can experience soft skills, form job-seeking skills, interview skills, and communication skills. At the same time, it is also a bridge to help students approach businesses.

+ Advertisement and recruitment information of enterprises can be posted on the University's website and fanpage. Allowing businesses to post recruitment information on the school's media channels clearly demonstrates the principle of harmonization of interests.

+ Students can participate in field trips at enterprises, contributing to the formation of professional skills. Participation in these activities is regulated by the content of the modules in the training program.

+ Support students to work part-time, organize internship programs for students. Through these programs, students will have the opportunity to consolidate and supplement practical skills based on the requirements of the modules in the training program.

+ Students are guided interview skills, CV writing, communication skills. These are soft skills that are essential for students when they graduate to find jobs and assert themselves in the organization.

+ Businesses have scholarship programs for students. This is an activity to motivate and encourage good study spirit of students.

+ Activities connecting alumni with students of the school. This is an important and necessary activity to create the pride and tradition of the school's students.

+ Organize contests to learn about businesses or professional fields. Through these contests, not only improve professional skills for students, but also create a better learning spirit, love for the profession, and be more proud of the profession.

- *Cooperation in scientific research, technology transfer (CSR)*

+ Exchange of experts between the School and Enterprise. This helps the experts of both sides to support and compensate for each other's missing points, contributing to improving the quality of the team.

+ Enterprises place orders with the school to participate in research projects, projects, topics, contributing to exploiting each other's resources.

+ Enterprises create conditions for scientists of the University to use machinery, equipment and facilities for research. This helps to improve the efficiency of scientific research activities.

+ The school actively connects and proposes to transfer scientific and technological products to businesses. Enterprises are not only a place to create scientific products, but also a place to apply scientific products to improve efficiency.

- *Roles and interests in the relationship between higher education institutions and businesses*

Links between universities and businesses reflect the close, mutually binding relationships between universities and businesses towards a common purpose. For businesses, the cooperation helps businesses have direct contact with many students, have the conditions to monitor and evaluate the working style as well as the knowledge and capacity of the students in an authentic way. most accurate. Thereby, businesses have a direction to recruit, select suitable personnel and contribute to promoting their image. In addition, the association with the university also helps businesses access the latest and most up-to-date research results and can be applied in their business activities. For the university, the first important benefit of cooperation with business is the funding for research, training and student work. The school's students experience professional and practical knowledge. The cooperation relationship between universities and businesses is a dialectical relationship, for the benefit of both sides, in which the University plays the leading role in this relationship. From this connection, educational institutions will have more conditions to improve the quality of training, produce "products" that

have been "experienced" in practice; and the scientific research results will have a clear application address in order to promote the application into practice, creating research efficiency and research implementation efficiency. This is an indispensable element in current research and research implementation.

The link between the University and the Enterprise is both inevitable and highly feasible in meeting the labor needs of enterprises and promoting the application of research results into practice. The promotion of research application and technology transfer will promote this dialectical relationship to a higher level, in which, the transfer of science and technology has aspects that need attention:

Firstly, research and transfer help improve research capacity in schools and promote business production in the direction of improvement according to demand. When intellectual human resources are becoming a direct productive force and a decisive factor in the competitiveness of enterprises, the implementation and close cooperation between universities and enterprises on scientific research is an important factor. trend, a positive measure of dynamic and creative education .

Secondly, universities have a team of intellectuals, trained in a methodical manner, capable of receiving and transferring advanced new technologies, thereby deploying them to businesses. In this respect, it is clear that the business benefits in terms of saving time and taking advantage of external resources. On the school side, also from this activity, it will quickly access financial resources from businesses to research and perfect new technologies.

5. CONCLUSION

The cooperation between schools and businesses is a necessary requirement, requiring the University to actively develop specific plans and roadmaps in the spirit of sharing, support and mutual benefits in order to improve results. training in school. Therefore, the model building is based on the actual needs of the stakeholders and on the scientific basis, the functions and duties of each party in accordance with the law. The quality of training is expressed through the indicators of the degree of satisfaction of the educational and training objectives (Internal) and the satisfaction of the needs of users of education and training products (External). outside). This is enhanced when there is close cooperation between schools and businesses through specific activities in training, providing support services, scientific research and technology transfer. Therefore, forming a model of cooperation with enterprises to build a roadmap, content, methods and forms of training organization is necessary to help students experience more, easily adapt and learn. respond to the changing requirements of the unit using human resources. This is not only meaningful to learners and businesses, but also contributes to improving the reputation and brand of the University.

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