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### EDUCATION – TRAINING TO DEVELOP SCIENCE AND TECHNOLOGY IN HO CHI MINH CITY, VIETNAM

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#### **ABSTRACT**

Promoting its potential and advantages, Ho Chi Minh City is aiming to become the center of industry, service, education and training, science and technology of Southeast Asia. To meet that requirement, Ho Chi Minh City determines that education - training plays a decisive role in the development of science and technology. In the framework of the article, the author presents the role of education - training for the development of science and technology; the reality of the role of education - training with science and technology development in the city. Ho Chi Minh in the past years; since then, there are some solutions to innovate and improve education - training to develop science and technology in Ho Chi Minh City in the future

#### **INTRODUCTION**

Ho Chi Minh City is the center of economy, finance, science and technology, commerce and services of the whole country; is the nucleus of the southern key economic region. Promote its potentials and advantages, Ho Chi Minh City is aiming to become the center of industry, services, education and training, science and technology (S&T) of Southeast Asia. To meet that requirement, Ho Chi Minh City determined that education - training plays a decisive role in the development of science and technology in the socio-economic development strategy in general, the international integration process in particular, and bring about practical achievements with the innovation and creation of science and technology, economic restructuring, improving competitiveness, ensuring rapid, efficient and sustainable development. However, in addition to the achievements in promoting the role of education and training in science and technology development, there are still limitations, such as low science and technology level, and picture is not

high, production still depends on manual labor; The contingent of science and technology staff remains low, failing to meet the city's rapid development requirements, and has not yet met the development needs, especially in the fields of high technology; increasingly polluted environment, has been affecting the sustainable development of the city.

The paper presents the role of education and training in the development of science and technology; the situation of the role of education and training with the development of Science and Technology in the City. Ho Chi Minh City in recent years, since then launched a number of solutions to innovate, enhance education and training to develop science and technology in the Ho Chi Minh City in the future.

### **LITERATURE REVIEW**

Vietnam in general, Ho Chi Minh City in particular, the issue of the role of education and training to the socio-economic development in general as well as to the science and technology development in particular, is increasingly perceived more comprehensively, and has attracted the research interests of many scientists and many socio-political organizations, with many different angles. The research works can be summarized as follows:

The article Education for a Future of Change: Lessons from the Past-Reexamining Progressive Education shows that, in a world with a highly competitive speed, innovation and creativity are the decisive factors for the existence and development of the competitive trend of the economy, which poses a requirement for employees to constantly study for life, constantly renew their awareness of science and technology as well as avoid backwardness in professional knowledge. At the same time, employees need skills in teamwork, able to create new ideas... A. Toffler thinks that education needs to be renewed: simply acquiring knowledge is no longer enough, Learners need to constantly learn throughout their lives, teachers are instructors and instructors not only professional knowledge, but also equipped with learning skills, thinking, creating a learning environment of discovery and creation. Come up with new ideas... enhance learners' ability to adapt to a changing future (Lachlan, 2003).

In the work The Future Shock became world famous. In the works A. Toffler has synthesized various events from all regions of the world, and concluded that the concentration of science, capital and communication created rapid change, creating a completely new form of society. A continuation of A. Toffler's research into the next two successful books, The Third Wave and Power Shift, generated excitement in the community, in universities, in businesses and in national governments. Newt Gingrich - former Chairman of the Republican Party in the House of Representatives said that "The third wave" has greatly influenced his thinking and is one of the great works of our time (Alina, 2011).

Pham Minh Hac analyzed the scientific basis of the strategy for comprehensive human development in Vietnam in the 1996-2000 period, at the same time outlined some strategic directions and solutions to build and

develop people in terms of morality, intellect, aesthetics. In particular, the book has specified in a certain category on the educational and training objectives of the school, mainly in the general and construction system a comprehensive education strategy aimed at developing science and technology to serve the industrialization and modernization of the country (Pham, 2001). Determining the viewpoint that education and training are the top national policy; analyze some theoretical and practical issues about education and training in our country and some countries around the world. From there, identifying some basic perspectives on education and training in our country should be properly aware and propose solutions and recommendations to reform education and develop scientific and public human resources high quality technology to meet the requirements of the new era (Le, 2018). Along with that, the authors have analyzed quite deeply the situation of human resource education and training; the role of education and training in science and technology development in Vietnam in the twenty-first century; from there, propose a number of solutions to promote and renovate education and training to meet the requirements of science and technology development of the country (Tran, 2010).

Explain the origin, nature and development of science and technology; relationship between science, technology and production. The role of science and technology is to realize the function of world perception and transformation and the author focuses on analyzing the role that is the foundation and driving force of science and technology for industrialization, modernization in Vietnam as a decisive role for the equipment of modern production, plays an important role in training and promoting human resources, perfecting the mechanism and organization of production management, making an important contribution to the realization of the goal of sustainable development (Pham, 2003).

In addition, we also have articles in magazines such as: Human resources in the industrialization and modernization of the country published in Philosophy Magazine, No. 3-1994 by author Nguyen Trong Chuan; Wisdom - Endless resources of social development career published in Philosophical Magazine, No. 1-1993 by Pham Ngoc Tram; Promoting the human factor in the production force published in the Philosophical Magazine, No. 1 - 1993 by author Nguyen Dinh Hoa; Human resources in the process of industrialization and modernization of the country published in The Journal of Information Theory, No. 11-1994 by Nguyen Quan Du; Education - training - the foundation of human strategy published in the Communist Journal, No. 3 - 1993 by Pham Tat Dong; Development of education and training is a condition to ensure industrialization and modernization, published in the Journal of University and Professional Education, No. 4-1995 by Luu Dinh Mac; Human resources - the driving force of the country's industrialization and modernization published in Philosophy Magazine, No. 1 - 1996 by Nguyen The Nghia.

Regarding the researches on the role of education and training in the development of science and technology in Ho Chi Minh City. Up to now, there has not been any systematic study on the role of education and training

in science and technology development in Ho Chi Minh City. But through studies on history, economics, politics - society, culture, and education in Ho Chi Minh City, we can generally learn about its role in socio-economic development in Saigon - Ho Chi Minh City through historical periods; basic directions and solutions to promote the role of education and training in the development of science and technology in Ho Chi Minh City. By the inheritance of research works, summarizing all the economic, social, cultural, educational and training fields in the city by many scientific organizations, the authors have introduced an overall- picture of a continuous struggle of the Party Committee and all walks of life of the city for 40 years, from April 30, 1975 to April 30, 2015. The work gathers the speeches of leaders, former leaders of the Party and State and leaders of central agencies, provinces, cities, City Party Committees, People's Councils, People's Committees, and Committees Fatherland Front and mass organizations; The elders of the revolution, the comrades leading the City through the ages, scientists, researchers, leaders of the districts, departments directly under the City, the staff, intellectuality.

Science - technology plays an important role in adjusting growth models, improving productivity, quality, efficiency and competitiveness of the economic sector. This is a matter of vital significance to the existence and development of the country, and is an urgent demand of the current industrialization, modernization and national integration in Vietnam. Proliferating its potentials and advantages, Ho Chi Minh City is aiming to become the center of science - technology, education and training, and services sector of Southeast Asia. To meet that demand, Ho Chi Minh City identified science - technology as the foundation to boost the rapid and sustainable development in the process of industrialization, modernization and national integration. (Nguyen, 2020).

With the spirit of science, objectivity, on a specific historical point of view, the speeches have contributed to analysis, evaluation, interpretation and additional clarification of many problems about economic growth achievements. social life, especially the welfare policy of the people of the city and affirms the contributions of Ho Chi Minh City in the cause of national construction, protection and development in all fields of economy, politics, culture and society, including education and training; at the same time, offering solutions to overcome the limitations and shortcomings to contribute to the rapid and sustainable development of the city in the following period.

In particular, research on education and training of the City, it is impossible not to mention the documents of the 6th, 7th, 8th, 9th, 10th Ho Chi Minh City Party Committee's Conference. This event has analyzed, evaluated and summarized both the general and profound achievements and limitations in the fields of education and training, science and technology of Ho Chi Minh City, thereby pointing out the original to multiply and propose directions and solutions to promote the role of education and training in the development of science and technology to serve the industrialization and modernization process in Ho Chi Minh City.

On the basis of inheriting the results of the works of previous scholars, the author tries to go into research into the issue of promoting the role of education and training in the development of science and technology in Ho Chi Minh City today.

## RESULTS

### *The Role Of Education-Training For The Development Of Science And Technology*

In the development process of human history, one of the decisive factors for the existence and development of society is science and technology - the basic and decisive factor of the production force. When referring to science and technology, K.Marx forecasted: “The development of basic capital is the norm of popular social knowledge (wissen knowledge) that has turned into a direct production power how and therefore the index of the conditions of social life, under the control of the common mind and how it is transformed accordingly” (K. Marx and Friedrich Engels, 1976, p. 215). This means that science becomes a direct production force when scientific knowledge is materialized into machines and tools of human production and used by workers in the production process. With a strategic vision, President Ho Chi Minh emphasized the role of science and technology in socio-economic development: “We all know that our scientific and technical level is still low. Way of production has not been improved much. The way of working is hard. Labor productivity is still low... The task of science is to try to improve those things... Science must come from production and come back to serve production, serve the masses, in order to improve labor productivity and continuously improve the lives of the people, ensure socialism for victory” (Ho Chi Minh, 1996, p.77-78). Therefore, he not only affirms the role of science, technology in the victory of socialism, but also defines the tasks and directions for science and technology. A. Toffler said: "All-natural resources can be exploited exhausted, only human knowledge is never exhausted, because knowledge has a never-ending nature" (A. Toffler, 1991, p. 8). Thus, scientific and technological knowledge is not only worn out but also improved during use and requires little cost.

It can be said that, from an economic perspective, the development of Science and Technology will boost the production force to develop, promote rapid and sustainable economic growth; accelerate the process of economic restructuring towards modern industry; improve intellectual content and increase the competitiveness of commodity products in the context of international integration. Considering from a social aspect, Science and Technology contributes to improving labor productivity, creating jobs and ensuring social security for workers. Being aware of that problem, our Party also affirmed: "Strongly developing science and technology to motivate the process of industrialization and modernization, develop intellectual economy, contribute to increasing productivity and quality, efficiency, competitiveness of the economy. The country's rapid and sustainable development; increase the

contribution of aggregate productivity and growth factor” (Vietnamese Communist Party, 201, p. 218).

In order for science and technology to penetrate into reality, education and training is the most effective way for people to timely access new information, enrich their sources of knowledge and creativity. Only through education and training can create and promote effectively all resources in society; At the same time, education and training are an important stage in the process from science to production; Science and technology must work closely and through trained human resources to penetrate production, business and social life. The goal of education and training is to create scientific knowledge, promote and develop science and technology applications to practically serve socio-economic development. Education and training is also a way to preserve, disseminate, exchange and develop science and technology, create human resources for reproduction and labor, because the essence of education is transmission and acquirement, developing the historical and social knowledge and experiences that mankind has created. Therefore, today, countries not only perceive education and training as a special social activity, a part of superstructure, but also a factor that holds a fundamental position and a decisive role of the development of socio-economy; Investment in education and training is an investment in the future.

By acquiring, inheriting and developing the theory of education and training together with summarizing practical educational experience in our country and other countries in the world, in the process of leading the revolution as well as in the cause of change. New country today, our Party identified: "Education and Training is a top national policy, a decisive factor to successfully implement the cause of national construction and defense; is the cause of the whole Party and the whole people” (Vietnamese Communist Party, 2013, p. 1), because: "Education and training, Science and Technology have the power to improve people's knowledge, develop human resources, foster talents, make an important contribution to national development, building culture and Vietnamese people. Developing education and training together with developing science and technology is a top national policy; Investment in education and training is development investment” (Vietnamese Communist Party, 2011, p. 77).

### ***Situation Of The Role Of Education - Training Education – Training To Develop Science And Technology In Ho Chi Minh City***

With the advantages of historical and social conditions, in recent years, the City's education and training has contributed positively in the development of science and technology: the level of the contingent of S&T staff is constantly developing, training a workforce to apply and innovate new technologies for the process of industrialization and modernization of the country. Ho Chi Minh City, where more than 100 universities (universities), colleges, professional secondary; key national research institutes and laboratories, "Incubator Park", including many high-quality multidisciplinary and multidisciplinary research and training institutions such as Ho Chi Minh City National University, Ho Chi Minh City University of Medicine and Pharmacy,

University of Economics Ho Chi Minh City, Ton Duc Thang University... each year provides nearly 100,000 high-quality workers for the city's socio-economic development. In particular, Ho Chi Minh City National University (with 7 member units: Ho Chi Minh City University of Technology (HCMUT), The University of Social Sciences and Humanities Vietnam National University Ho Chi Minh City, Vietnam National University Ho Chi Minh City - University of Science, International University, University of Information Technology VNU-HCM, University of Economics and Law, Institute of Marine Environment and Resources) with 26 affiliated units is organized and operates according to the functions of training, scientific research, serving management, training, research and technology transfer. effectively serve the socio-economic development process for the City in particular and the southern key economic region with a total of more than 5,600 cadres and civil servants with about 2,600 teaching staff and 2,200 managerial staff and 800 researchers, including 250 professors, associate professors, 1,000 doctorates, 1,800 masters. After nearly 25 years of operation, Ho Chi Minh City National University has always been one of the leading institutions in the country in terms of scientific publication, especially in prestigious international journals accredited by ISI (Institute for Scientific Information - Thomson Reuters). Compared to the period of 2006-2010, the number of articles published in international journals for the period of 2011-2015 of Ho Chi Minh City National University nearly tripled (from 787 to 2142) (see table). Every year, the number of ISI articles in the total number of international articles accounts for a large proportion, ranging from 60% to 77%. The rate of publication of international/doctoral articles also increased gradually and reached 0.54 in 2015. The quality of scientific articles by researchers of National University of Ho Chi Minh City does not only has the growth in quantity but also been assessed better by the international scientific community over the years through the increase in average impact factor (IF: Impact Factor) from 1.62 in the period of 2006-2010, to 2.08 in the period of 2011-2018 (Ho Chi Minh National University, 2019).

Along with the expansion of the scale of schools, institutes and training centers, scientific research, technical infrastructure, equipment, laboratories for research and application of science and technology have been improved and upgraded. The city's investment in science and technology since 2006 has averaged at 1.2% of total annual budget expenditure, of which the average development investment is about 50%, with more than 222 science and technology organizations posting signed operations, including 61 public organizations and 161 non-public organizations of all economic sectors (Municipal Party Committee, People's Council, People's Committee, Vietnam Fatherland Front Committee (Ho Chi Minh City, 2015, p. 499) as the pillar of economic restructuring in a positive direction for the socio-economic development process as well as the industrialization and modernization process in the City. The level of S&T staff has been raised significantly through domestic and foreign training programs, scientific research activities and production activities; The capacity of the staff class in the age group 30-40 and age 40-50 in institutes and schools has been raised, the shortage of staff has been partially overcome.

Along with that, Ho Chi Minh City always has open policies, a favorable working environment to attract good experts and leading scientists from many places at home and abroad. Every year, the city's universities, institutes and centers have invited dozens of professors and doctors in cooperation, teaching and research at the units. This is a very diverse and abundant source of gray matter, because they are trained from many leading universities in the world, and have access to and capture the latest achievements of science and technology, making a significant contribution to the process of industrialization and modernization in the Ho Chi Minh City. On the other hand, the City's people are active, creative and eager to learn, is also a favorable condition to access modern scientific and technological knowledge, a positive impact in socio-economic development and implementation of the city's industrialization and modernization process.

Ho Chi Minh City is also a place to gather about 163 units (24 state units, 30 collectives and 109 private units) with more than 10,000 people doing research and teaching with scientific and technological qualifications, reaching a rate of quite high compared to the whole country. At the same time, the investment in facilities and equipment reaches an advanced level in Southeast Asia to enhance the capacity of researching, mastering and creating new and high-tech technologies, such as the biotechnology center, Institute of Computational science and technology, Design and Manufacturing Center of New Equipment - Neptech, Research and Development (R&D) Center of High Technology Park, Circuit Design Research Center, Laboratory stem cell experiments of National University of Ho Chi Minh City... has contributed positively in the application of Science and Technology to the socio-economic life, serving the process of industrialization and modernization, as follows: in recent years, Education and Training in the City has Constantly renovating the methods and contents of education and training associated with science and technology, focusing on deploying tasks to serve the process of economic restructuring in the direction of developing four key industries (mechanical engineering, electronics-information technology, chemicals, food and foodstuff processing), 9 strong service sectors (finance - credit - banking - insurance, commerce; tourism; transportation, warehousing, port services; post-telecommunications and information - communication technology; property - real estate business; consulting services, science and technology; tourism; Health and Education and Training) and 7 breakthrough programs of the City, creating many products and services of high quality and competitiveness, implementing the goals and tasks of industrialization and modernization in order to ensure development. Socio-economic is fast and sustainable, making the city become a center of education and training with science and technology of the country and the region. The internal statistics clearly show this shift: Value added in services accounts for a large proportion of GDP (61,81% in 2018); industry - construction with added value accounted for a proportion of GDP (in 2018 reached 19,69%); The agricultural sector has always maintained the proportion of nearly 1.0% (from 2011 up to now) and developed towards "modern, efficient and sustainable urban agriculture". Thus, basically "the economic structure in the city has shifted positively and in the right direction" (Ho Chi Minh City Party Committee, 2015, p. 12), the ratio of services -

industry in the economic structure is increasing, the rate of agriculture declines.

At the same time, Education and Training has contributed positively to Ho Chi Minh City science and technology went into research, application, serving the requirements of socio-economic development with many new achievements being applied in the fields of industry, agriculture, construction ... creating many products, services with high quality and competitiveness, serving production and consumption. The city has gathered human resources to develop key technology fields in economic - technical industries such as: microchip-semiconductors, biotechnology, stem cells, pharmaceutical technology... According to Department of Science and Technology report, in 2013-2014, the City had about 43 research results, signed a transfer to the application unit (Ho Chi Minh City Municipal Party Committee, 2016, p 209) with the highest rate of scientific research applications in recent years, reaching an average rate of nearly 35% (Municipal Party Committee, People's Council, People's Committee, Vietnam Fatherland Front Committee Ho Chi Minh City, 2015, p. 461). Science and technology market gradually formed, bringing initial results having important meaning, mobilizing scientific and technological potentials through the linkage among universities, research institutions and enterprises.

Although Education and Training of Ho Chi Minh City has had a certain development, contributing to the process of industrialization and modernization of the city, but compared to the requirements of socio-economic development associated with the current knowledge economy, "the quality of education and training and human resources the force has not met the requirements of development and international integration; Science-technology has not really become a driving force for development" (Ho Chi Minh City Party Committee, 2015, p. 23), education and training therefore still face many difficulties and challenges arising from reality, with the following specific manifestations.

*Firstly*, although education and training in the City has contributed positively to the development of science and technology, contributed to the increase in economic value and economic restructuring towards modernization, if compared with the development requirements of Education and Training for the development of Science and Technology has not yet met the requirements of the industrialization and modernization process, has not yet become a driving force for socio-economic development, has not overcome the situation of lagging behind compared to other developed countries in the region. Awareness of education and training institutions investing in science and technology research activities is still slow and low, leading to limited effectiveness of scientific research projects. The orientation and policies on Education and Training of high-quality human resources are not really tied to the orientation of science and technology development.

*Secondly*, the link between science and technology managers and managers - businesses; between research institutes, universities, industrial parks and hi-tech parks is not really tight; results of scientific and technological research

applications to production and life are limited. Science and technology management mechanism has been renovated but not keeping up with the requirements of the market mechanism; orientation and policies for training high-quality human resources are not really tied to science and technology orientation; Science and technology market develops slowly; investment in scientific and technological research is still scattered, not focused on solving big problems and timely meeting urgent requirements of the City.

*Thirdly*, the number of science and technology organizations has increased slowly, especially in universities and outside the state, the number of adjoining staff is inadequate, scattered and lacking of leading intellectuals which can gather different sources of knowledge to serve the development of the knowledge economy, not many strong and reputable scientific and technological collectives in the region and the world; Scientific research activities have not yet started and are closely associated with production and business; many projects have been accepted but not yet applied; there are still too few works published in prestigious international journals, though there have been flourishes, some intellectuals do not regularly learn, seek professional training, lack of a sense of responsibility, self-respect, professional ethics, lack of the spirit of cooperation.

It can be seen that the causes of the above limitations are due to: The quality of teaching is not high and uneven in universities; the content, methods and training programs are still inappropriate; although teaching facilities have been improved, they are still generally outdated. In particular, the shortage of leading cadres and experts in the fields of science and technology is capable of undertaking research tasks of international stature, making breakthrough contributions to the socio-economic fields of the country. The interdisciplinary cooperation is still weak, so scientific and technological activities of universities and institutes have not been linked with technology import activities in the process of industrialization and modernization. In addition, the determination and forecast of the need for high-quality human resources has not been timely, has not taken the initiative in direction and coordination among agencies, departments and agencies as well as exploited the support effectiveness of foreign organizations and individuals, overseas Vietnamese scientists in choosing the right key research tasks and forces, scientific and technological organizations capable of carrying out such research tasks. Therefore, the state of investment in science and technology remains fragmented, equal, and overlapping; S&T activities efficiency is not high. Facilities for scientific research have not yet met development requirements, especially in the field of high technology.

### ***Some Solutions To Promote The Role Of Education And Training For The Development Of Science And Technology In Ho Chi Minh City***

From the above situation, the City has defined the overarching task in education and training development, aiming to promote the highest role of education and training for the development of science and technology in the Ho Chi Minh City is now: "Innovating fundamentally and comprehensively education - training associated with improving the quality of human resources;

creating dramatic changes in the quality and effectiveness of education and training in the city ... Striving to 2020, the city's system of education and training is standardized, modernized, socialized, democratized and integrated with advanced education in the region and in the world, upholding socialist orientation and national identity" and "developing, strongly applying science and technology are really the driving force for socio-economic development" (Ho Chi Minh City Party Committee, 2015, p. 195). To successfully accomplish the above task, the following measures must be implemented:

*Firstly*, to comprehend and fully and deeply understand the role of "leading national policy", the fundamental role and motivation of education and training for scientific and technological development in particular and the strategy. Socio-economic development in general within the Party Committee, the government and agencies, social organizations and the urban population with regard to the overall socio-economic development strategy of the Party Committee, the administration and the agencies, social organizations and the City people; thereby creating a unity of awareness and action in the city's political system, towards developing a civilized and modern city. Theory has a guiding role, leading all human activities; Therefore, in order to develop human resources to effectively serve the industrialization and modernization process, Education - Training must be one step ahead. This solution must be implemented consistently and throughout the entire socio-political system of the City.

*Secondly*, perfecting mechanisms and policies to create close links between science and technology organizations, businesses, employers, training institutions and the Ho Chi Minh City's education and training sector to develop science and technology according to social needs. It's necessary to create conditions for attracting foreign capital; joint ventures and associates with foreign educational institutions with advanced education levels, thereby attracting finance, acquiring the education elite, labor skills of countries in the world. Along with that, there is a regime to encourage overseas study, creating conditions for international students to develop career skills when returning to their homeland. That will help us reduce difficulties, save time, stay on the right track for the development of the world. Continuing to diversify the types of education has created conditions to complement each other's strengths among different types of education, actively contributing to improving the quality of comprehensive education for students, meeting the requirements of training. Creating more and more of society. Facilitate increasing teacher income appropriately with improving the quality of school training. At the same time, perfect the national education system towards openness, modernity and continuity, standardization, modernization, diversification and international integration, meeting manpower requirements for socio-economic development. It attaches special importance to training high-quality human resources at all levels. Building up a diverse education system in terms of learning methods, ensuring that all people are learning according to their own desires and lifelong learning in learning society. Developing the education and training system in an open, modern and interconnected way is a premise for scientific and technological development, the most effective exploitation and effective use of the knowledge of the nation, mankind and the foundation for

the process of industrialization and modernization is the same as for the construction of the knowledge economy in our country. Since then, promoting the role of Education and Training for the development of Science and Technology in the Ho Chi Minh City, creating scientific and technological resources sufficient to cooperate and compete equally in the era of knowledge development and the fourth industrial revolution.

**Thirdly**, continue to promote the innovation of content, curriculum and methods of teaching with science and technology, improving the quality of high-quality human resources in Ho Chi Minh City. Regarding the content of Education and Training towards the development of skills, expertise and ethical qualities of learners in order to serve the goal of socio-economic development in each specific historical period in general, to restore case of industrialization and modernization process in particular; - Regarding the educational method, it must be directed to learners who are the center, helping learners to switch from studying and solving problems to discovering and applying modern knowledge, specifically: For general education, ensure that all people of school-age go to school; focus on developing intellectual, physical, forming quality, civic capacity, discovering and fostering aptitude, career orientation for students in accordance with the specific characteristics of the City. For the vocational education system, to rapidly increase the scale of vocational college and vocational secondary training for industrial parks, motivational economic regions and labor export; expand the network of vocational training institutions, develop district vocational training centers; improve the educational level, skill level, discipline and ethical qualities of employees. At the same time, the City needs to focus on training skills and expertise for workers, based on the actual needs of each different locality in the City, through the forms of self-training and training affiliate programs. For higher education, to focus on training qualified laborers suitable to the process of economic restructuring, in which focusing human resources for industries with high technology content and high value added ensuring high-quality labor demand for 9 service industries, 4 industries which are the City's strengths; step by step actively and effectively participate in the regional and international high-tech labor market, first of all 8 professions (including dentistry, nursing, engineering, construction, accounting and architecture, survey and tourism) are freely moved within the ASEAN Economic Community. Universities and colleges organize their own admission according to the wishes of students after graduating from high school.

**Fourthly**, do well the planning and education development planning in the direction of modernization, properly determine the strategy for developing S&T human resources, based on the good implementation of network planning university, college and vocational training network, aiming to train human resources according to fields and training levels, suitable to the needs of society, effectively serving the socio-economic development strategy, as well as for industrialization and modernization, international integration of the City; piloting school construction projects in urban districts with no land fund, renovating old buildings into modern high-rise buildings suitable to the reality of each locality, each project's nature, solving shortage of classrooms in densely populated areas, avoiding wasteful investment of funds and

construction ground. Along with the increase of new classrooms, the need to increase staffing is necessary, at the same time, "increasing public investment to improve the quality and effectiveness of science and technology programs in the field; pay attention to the contingent of experts in key science and technology fields such as manufacturing engineering, electronics, information technology, microchips, pharmaceutical chemistry, new materials, environmental protection and coping with climate variability and change " (Ho Chi Minh City Party Committee, 2015, p. 137).

*Fifthly*, there must be a policy to respect talents, considering "talent is the national spirit", creating favorable working conditions, promoting the capacity of "leading cadres" in the fields of Science and Technology. Practical over 30 years of innovation in the Ho Chi Minh city in particular, the country in general, the quality of education is high or low largely depends on the quality of the educational management team, because the cause of education and training is always developing, making requirements and increasingly demanding qualifications, quality of leadership, management of education managers. The responsibility of education managers is not only responsible for the current state of education and training in our country today, but also the past and future. Ho Chi Minh City is a special city, a leading locality in the country in the process of industrialization and modernization, so the city's Education and Training sector must be the place to attract the best and smartest people. The most and most professional job to really be a lever to improve the quality of education and training for the development of science and technology for the process of industrialization and modernization of the city. Paying attention to improving the quality and efficiency of scientific and technological research and application. Actively applying information technology and using the Internet in education and training, in teaching and developing forms of self-study; improve foreign language skills for both teachers and learners; The implementation of academic socialization and the socialization of information are the premise for S&T development.

## CONCLUSION

The role of education and training in Ho Chi Minh City has shown clearly in providing more and more new knowledge for employees to continue researching and inventing new and modern technologies for high productivity and efficiency, saving materials, creating valuable and competitive products. On the other hand, the speed of scientific discovery is increasing, the distance from invention to application is shortened as well as the competition on high technology takes place fiercely, the communication on science and technology takes place vibrantly, there is It can be said that the scientific and technological development of the City is the crystallization of the human brain and brain. By constantly focusing on investing and innovating learning content in line with the goals of human resource development, education and training contributes positively in research and development activities of science and technology, step by step affirming the role the role of promoting socio-economic development, improving production processes, contributing to the process of restructuring the economic and labor structure towards modernization, thereby leveraging to promote rapid and sustainable economic growth, enhance competitiveness, ensure the strong and sustainable

development of the industrialization and modernization process of the City. Therefore, education and training must be conducted regularly, continuously and lifelong so that workers can adapt to the innovations of Science and Technology for social production as well as for the process of industrialization and modernization, implement synchronization the above solutions will contribute to promoting the strength of education and training for the development of science and technology, promoting socio-economic development, so that Ho Chi Minh City deserves to be a business center of economy, finance, science and technology, commerce and services throughout the country; is the nucleus of the southern key economic region.

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