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High Quality Human Resources Development to Satisfied the Globalization in Vietnam: Defiances and Solutions

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ABSTRACT

Human resources, especially high quality human resources play an important role in development of the economy and the society. In a globalization circumstance with a strongly development of "Industries 4.0", Vietnamese government was focusing in building a highly qualified human resources to satisfy the need of development and globalizations; in which, concentrating human resources for industries with high technology content and added value, improving training quality to meet labor market requirements at home and abroad. However, over the past years, Vietnam has faced great challenges, high-quality human resources have not met the requirements of socio-economic development in the current international integration process. Therefore, it is necessary to have a system of solutions deployed synchronously in order to develop more high-quality human resources to meet the development requirements of Vietnam in the international integration process. Keywords: Human, high quality human resources, globalization, Vietnam

INTRODUCTION

High-quality human resources are an integral part of the country's human resources. Developing high-quality human resources, in essence, is developing and perfecting the employees with professional and technical qualifications for a specific profession, according to the criteria of labor classification of certain professional and technical qualifications; have good professional skills and the ability to adapt to the rapid changes of production and business technology; have good health and quality; able to apply creatively the knowledge and skills that have been trained in the production process in order to bring high quality and efficient labor productivity. They are those who master modern scientific and technological knowledge, have creative thinking, have good practice skills, have industrial style, have an organization and discipline, have good health, contribute to extreme and effective causes of national construction and defense. Therefore, investment in human resources is investment for development in the process of international integration, as Vietnam has affirmed: "Developing and improving human resources, especially high-quality human resources is a strategic breakthrough, is the decisive factor to promote the development and application of science and technology, restructure the economy, transform the growth model and the most important competitive advantage, ensure the rapid and effective and sustainable development" (The Communist Party of Vietnam, 2011). In the process of international integration, the development of high-quality human resources has positively contributed to economic restructuring, increased labor productivity, helping Vietnam escape the "middle income trap", step by step ensure the life of workers. However, the economy is still mainly developed in width, economic growth depends heavily on factors of capital, resources, and low-skilled labor, not relying much on knowledge, science and technology, skilled labor. Labor productivity has been slowly improved, much lower than in some regional countries; the quality of human resources is low, the labor structure shift is not corresponding to the shift of production structure, it is necessary to have a system of more comprehensive and comprehensive solutions in the coming time. This is also the main content of this article.

LITERATURE REVIEW

Developing human resources to meet the requirements of international integration has attracted the research interest of domestic and foreign scientists, in many different aspects and angles. First of all, Asian Development Bank is a collection of articles by foreign scholars from the Asian Development Bank, Institute for Development Studies of Bangladesh, Indonesia, Philippines, Thailand, University of Seoul, Korea on issues related to human resource development in relation to economic development such as population, employment, education - training, health, nutrition, vocational training, use of human resources... (Asian Development Bank, 1990). Jim Stewart and Graham Beaver mentioned three basic contents including: studies on the characteristics of small-scale organizations and suggestions in the design and implementation of research on human resource development; Research results on approaches to human resource development in small-scale organizations and refers to human resource development methods that small organizations often apply and practice (Jim & Graham, 2004). On this topic, in Vietnam, there have been many researches. On the basis of the theory of industrial human resource development, the author gives the current status of industrial human resources in Vietnam such as: the current situation of education and technical expertise, the current situation of high-quality human resources of the industry, the current situation of training and fostering industrial human resources. Since then, the author outlines the basic solutions and the role of the trade union in the development of industrial human resources. Vietnam serves the process of industrialization - modernization of the country (Le, 2009).

Human resource development to meet the requirements of industrialization, modernization and international integration was a collection of articles by many authors and is divided into three parts: general theoretical issues; domestic and international experience in human resource development; and current situation, recommendations and solutions to human resource development to meet the requirements of industrialization, modernization and international integration (Vu & Nguyen, 2012). Pham Minh Hac analyzed the scientific basis of the strategy for comprehensive development of Vietnamese people, the strategic directions for comprehensive development of Vietnamese people in the period of national industrialization and modernization. Another issue in the process of international integration in Vietnam is the issue of intellectual resources and the issue of building and promoting intellectual resources in the process of industrialization and modernization of the country (Pham, 2001). As well as the experiences of building and promoting intellectual resources of Vietnam and a number of countries around the world, from that point out general solutions and specific solutions to build and promote Vietnamese intellectual resources for international integration (Nguyen, 2012). From the need to associate training with the use of human resources for international integration, the work outlines the situation of linking training and employing human resources, from which a number of suggestions are proposed. the basic solution to link training with the use of human resources to meet the needs of socio-economic development in general as well as the process of industrialization and modernization of the country in particular (Nguyen, 2007). The above-mentioned works all mentioned and analyzed the human resource development in the socio-economic development process, the achievements, the shortcomings in human resource development. Export a number of solutions to develop human resources in the process of international integration. However, those works are only briefly mentioned, without in-depth analysis of challenges and solutions to develop high-quality human resources to meet international integration requirements in Vietnam.

METHODS

American futurist Alvin Toffler emphasized the role of intellectual work: "Money is spent forever, power is lost; it is only human intellect that, when used, it is not only lost but grows" (Alvin, 1992). There is a dialectic relationship between human resources, capital, natural resources, facilities- techniques, science - technology... in which human resources are considered endogenous governing other resources and the socio-economic development process of each country. Compared with other resources, human resources, with the leading factor being intelligence, have an outstanding advantage of not being depleted if they can be fostered, exploited and used properly. However, other resources, no matter how much, is only a limited factor and can only be effective when combined with human resources effectively. Therefore, the development of high-quality human resources not only allows to maximize the potentials and strengths of the country, but also creates resilience and competitiveness of human resources at home and abroad. It is an increase of investors looking to develop human resources, improve the quality of work where there are many high-quality human resources living, working and working. At the same time, creating a comparative advantage between our country and other countries in the region and in the world in terms of high-quality human resources will be an opportunity and condition for Vietnam to promote cooperation and development in various fields trades, thereby enhancing the country's position and prestige in the international arena.

In the modern world, when gradually shifting to a knowledge-based economy and in the trend of globalization, international economic integration, human resources, especially high-quality human resources are increasingly possibl show decisive role. Recent growth theories show that an economy that wants to grow rapidly and at a high rate must rely on at least three basic pillars: adoption of new technology, development of modern infrastructure and improving the quality of human resources. In particular, the most important driver of sustainable economic growth is human resources, especially high-quality human resources, who are invested and developed, with skills, knowledge, and hands. profession, experience, and creative capacity to become "capital - human capital, human capital". In the context of a volatile world and fierce competition, the victory will belong to countries with high quality human resources, a favorable legal environment for investment and a socio-political environment stability.

International experience has shown that the focus on human resource development is considered the orientation of society to improve labor productivity as well as create a foundation for career development, economic and social stability National Assembly. To develop human resources, a number of countries around the world have started to streamline students very early and are supported to choose appropriate careers and apprenticeships. Typically Singapore, the education system of this country is very flexible and always oriented to the abilities, interests and talents of each student to help them maximize their potential. In addition to the application of new scientific and technological advances in teaching, the training program always focuses on educating personality and national cultural traditions. The State invests in very few public schools to have exemplary quality, has an appropriate credit policy to attract talent training, with the non-public sector, the Government facilitates development and encourages employment connect, link with foreign countries, invite international universities to set up branches...

In the modern world, when gradually shifting to a knowledge-based economy and in the trend of globalization, international economic integration, human resources, especially high-quality human resources are increasingly possible show decisive role. Recent growth theories show that an economy

that wants to grow rapidly and at a high rate must rely on at least three basic pillars: adoption of new technology, development of modern infrastructure and improve the quality of human resources. In particular, the most important driver of sustainable economic growth is human resources, especially high-quality human resources, who are invested and developed, with skills, knowledge, and hands profession, experience, and creative capacity to become "capital - human capital, human capital". In the context of a volatile world and fierce competition, the victory will belong to countries with high quality human resources, a favorable legal environment for investment and a socio-political environment stability.

Germany is a highly developed country by doing well in its human resource development strategy. In Germany, the dual human resource training system is considered the world's leading effective training model. The dual human resource training system, thanks to its focus on the quality of training and good remuneration, attracts high-quality vocational teachers. Teachers are carefully selected on the basis of meeting rigorous standards, such as at least 5 years' work experience, and sufficient pedagogical and professional qualifications to participate in teaching. Professional and pedagogical competency standards for vocational teachers basically include the official profession of the industry certification, 1.5 years of extra training in the evening at the technical school and passing the graduation exam.

Norway is one of the countries with a fairly advanced model of human resource training, effectively meeting the requirements of integration and development. A statistic shows that nearly 90% of Norwegian youths enter vocational schools when they reach the age of 15-16. Once vocational training is completed, students can continue to attend university (with some additional education in general science, such as math, physics, geography...). The Norwegian education and vocational training system is using a 2 + 2 model, i.e. 2 years of schooling and 2 years of practical study in enterprises.

Australia is a country with an excellent method of training high-quality human resources, students can learn with experts, practice in a real working environment in the learning process. In addition, the vocational education system has a good coordination with trade unions to help trainees have practical job experience to facilitate the recruitment process. In particular, at the vocational schools in Australia, the professions and training profession are plentiful and diversified, with many leading industries in the world.

From theoretical issues and world experiences, in the process of international integration, Vietnam has identified: "Develop a human resource development strategy for the country, for each industry, each field, with synchronous solutions, in which solutions for training and retraining human resources in schools are also focused as in the production and business process, focusing on improving professionalism and practical skills" (The Communist Party of Vietnam, 2011)

Main Findings: Every country to develop must always create resources for development. In any society, although developmental levels and natures vary, the resources for development are still means of production (land, resources, machinery, technology, finance...) and labor force. In which, labor power - high-quality human resource is the most dynamic factor, the source of all material and spiritual wealth in society. Therefore, in the process of international integration, the Government of Vietnam has always focused on human resource development strategy, identifying this as the most valuable resource, having a decisive role in promoting the development process.

Currently, Vietnam has become a low-middle-income country and has gained many achievements in developing high-quality human resources. However, in reality, there are special challenges that require the Government to have appropriate solutions and policies to improve the quality of human resources serving the socio-economy in the current international integration process.

Applications: Research results can be used to make policy recommendations for developing high quality human resources to meet the requirements of international integration in Vietnam.

Results

Overview about human resources in Vietnam

Currently, the biggest advantage of Vietnam is its abundant workforce and young labor structure. According to the General Statistics Office (2020), Vietnam has about 94 million workers, of which the labor force aged 15 and over accounts for about 55.7 million people. The proportion of employed workers aged 15 and over in 2019 is estimated at 54 million people, including 18.8 million people working in agriculture, forestry and fisheries (accounting for 34.5%); 14.4 million people in industry and construction (accounting for 26.7%); service sector 18.7 million people (accounting for 37.8%) This is a favorable condition for Vietnam to rotate labor in the region and the world in the integration process.

Table 1. Labour force at 15 years of age and above by age group

Year	Total Thous. persons	15-24		25-49		50+	
		Thous. persons	Structure (%)	Thous. persons	Structure (%)	Thous. persons	Structure (%)
2005	44.905	9.168	20,42	28.433	63,32	7.304	16,27
2008	48.210	8.734	18,12	29.973	62,17	9.502	19,71
2010	50.393	9.245	18,35	30.939	61,40	10.208	20,26
2013	53.246	7.916	14,87	31.905	59,92	13.425	25,21
2015	53.984	8.012	14,84	31.970	59,22	14.002	25,94
2017	54.824	7.581	13,83	32.599	59,46	14.644	26,71
2019	55.767	7.159	12,8	3.430	61,5	14.299	25,7

Source: Statistical Yearbook of Vietnam 2019

About human resources quality. Labor quality in Vietnam in recent years has also been gradually improved. The proportion of workers aged 15 and over who are working with trained training increases from 12.5% in 2005 to 14.6% in 2010, and 19.8% in 2019. In terms of professional qualifications The technical skills and qualifications of the employees tend to increase at all training levels including vocational training, professional intermediate, college and university and higher (Table 2). In particular, the number of employees with college and university degrees or higher increased even more. If in 2010, the number of employees with college and university degrees or higher was 8.7% in 2015, in 2019, these rates would be 10.6% respectively. The trained labor has partly met the requirements of the business and the labor market. Vietnam's technical workforce has mastered science and technology, and can handle most complex positions in production and business that previously had to hire foreign experts.

Table 2. Percentage of trained labour force at 15 years of age and above by qualification Unit: %

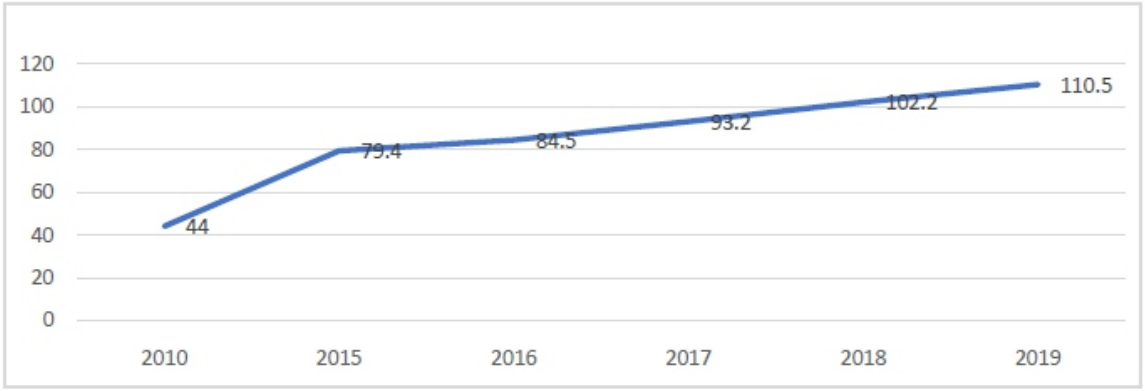
Year	2015	2016	2017	2018	2019
Primary	3,3	3,2	3,5	3,6	3,7
Intermediate	5,2	5,3	5,3	5,2	1,7
College	3,0	3,2	3,3	3,7	3,8
University and over	8,7	9,2	9,5	9,5	10,6

Source: Statistical Yearbook of Vietnam 2019

About productivity. Along with the improved quality, the labor productivity of Vietnamese workers has also improved in recent years. Statistics show that labor productivity has increased from 44 million VND/employee in 2010 to more than 2 times, reaching 102.2 million VND/employee in 2018. On average, labor productivity in the period 2016-2018 increased by 5.77%/year, higher than the 4.35/ year rate of the period preceding 2011-2015; and for the whole period 2011-2018, labor productivity increased on average by 4.88% /year. With such speed, Vietnam has gradually narrowed the gap with other countries in the ASEAN region. If in 2011, labor productivity of Singapore, Malaysia and Thailand was 17.6 times, 6.3 times and 2.9 times higher than Vietnam's labor productivity, by 2018, this gap have been narrowed down to 13.7 times, 5.3 times and 2.7 times, respectively.

According to the 4th annual assessment report on the progress of SDG implementation by the United Nations Sustainable Development Solutions Network (UN) and Germany's Bertelsmann Stiftung Foundation just announced in July 2019, Vietnam increased by 3 level compared to 2018 in achieving sustainable development goals, the quality of human resources in Vietnam ranks 11/12 countries in Asia (Minh, 2020).

Chart 1: Social labor productivity
Unit: Million VND / labor



Source: Statistical Yearbook of Vietnam 2019

This is partly due to the introduction of a human resource development program that promotes support for startups and private enterprises. The innovative start-up ecosystem in our country has begun to grow. At the same time, the Government of Vietnam has selected 251 professions and trades in 49 key industries and occupations at all levels of 45 schools to support investment, of which 154 occupations in

27 international careers, 60 occupations in 18 occupations and occupations at ASEAN regional level and 37 turns in 28 occupations at national level and schools have received transfer of training for 34 international key occupations (12 occupations from Australia- a, 22 occupations from Germany). The current training scale of the international transfer system is 2,000 students. Graduates will be awarded with Australian or German associate degrees; 682 lecturers were trained synchronously at home and abroad; 45 schools have been assessed by international partners to meet the standards for training organization.

Along with that, the schools meet the quality accreditation standards in the country. In which, 21 schools operate the UK quality management process, 8 international accreditation pilot schools have basically met the standards assessed by British and German experts. Large corporations and enterprises have been interested in and directly participating in vocational training, such as Vingroup, Sungroup, FPT, Samsung, Muong Thanh, Thaco,... Investment projects with high quality human resources have been basically met. Cooperation between enterprises and schools is strengthened in the direction of increasing in-company training, custom training... Most of the high-quality training programs have over 30 in-company training duration %, practice time is over 50% of the program. In 2020, employment in Vietnam will continue to grow. Among them is the shift from using simple labor groups to highly skilled groups. This is a positive and inevitable transition according to the trend of economic development. According to FALMI statistics, out of 110,172 turns of people wishing to find jobs in 2020, up to 94.78% of trained workers. In which, university and higher accounted for 66.57%, college accounted for 15.82% and intermediate level only 6.72%. These rates are mainly concentrated in the fields of finance - banking, accounting, IT, business administration, management and operation and marketing - public relations. Demand for job hunting in untrained workers accounts for a very modest proportion. Specifically, the rate is 5.22%, primary vocational - technical worker with 5.67% (Kizuna, 2020).

Thus, in the process of international integration, the quality of Vietnam's human resources has been improved more than before, most clearly reflected in the improved labor productivity of the whole society, creating good growth and improving the competitiveness of the economy and the national potential. Contributing significantly to the supply of human resources for growth, increasing labor productivity, helping Vietnam escape the "middle income trap". Challenges posed to developing high quality human resources to meet the requirements of international integration in Vietnam The development of high-quality human resources in Vietnam in the international integration process still faces many difficulties and challenges, including: Firstly, population aging. One of the top concerns for human resource development in Vietnam today is identifying the challenges brought by the population age structure shift. Vietnam has now entered the population aging stage, we are also one of the countries with the fastest population aging rate in the world, reflected in the increasing proportion of the elderly in Vietnam. In recent years, at the same time, the population entering the workforce has steadily declined each year, heralds a decline in the workforce in the near future. The labor statistics in Table 1 show that, if in 2005, the labor force aged 15-24 was about 9,168,000 people, accounting for about 20.42% of the labor force aged 15 and over of the whole. By 2019, the number of employees in this age group has decreased to only 7,159 thousand people, equivalent to 12.8%; Meanwhile, the number of employees aged 50 and over in 2005 was 7,304 thousand people, equivalent to 16.27%, by 2018, this number had increased to 14,299 thousand people, equivalent to 25.7%. Second, the quality of training. In recent years, although the quality of human resources in Vietnam has improved significantly over time, there are still many limitations.

First, the quality of workers still has a large disparity between regions, especially between urban and rural areas. Although the gap in qualifications and skills of workers in these two regions has narrowed over time, at the time of the survey in 2019, the proportion of workers aged 15 and over is currently working. Trained jobs in urban areas are still 2.66 times higher than those in rural areas. At the same time, qualified human resources and skilled workers have not yet met the market demand. Although the proportion of workers aged 15 and over who are working with training has increased, but in general is still low, accounting for only 19.8% in 2019. Among the skills, language proficiency, Specifically, Vietnamese English is still poor compared to workers in many countries in the region, so Vietnamese workers often encounter more difficulties in the integration process, thereby indirectly affecting competitiveness of the economy. Besides, there is still a large difference between professional qualifications and practical skills in practice, reflected in the fact that workers still need time to adapt, train, and additional training to be able to achieve them highest labor efficiency in an industrial environment. Not only that, the actual feedback from many enterprises also shows that the responsiveness of skills due to technology changes of workers in enterprises is still low. Currently, in companies, mechanical factories, and positions requiring high technology are often undertaken by foreign workers. Not only that, the gap between vocational education and market demand is still very large. Every year, thousands of students graduate from school. However, enterprises are still in a labor shortage in many positions (Kizuna, 2020). By 2020, Vietnam has up to 75% of the workforce in small and medium enterprises that has not yet received technical or professional training. Meanwhile, human resources are considered as a key factor in the sustainable development of businesses. The quality of human resources in Vietnam is 3.79 points (out of a 10 point scale), ranked 11th out of 12 countries surveyed in Asia. While Korea reached 6.91 points; India reached 5.76 points; Malaysia reached 5.59 points (Minh, 2020). Thus, our country's human resources still lack quality, lack of dynamism and creativity, industrial style.

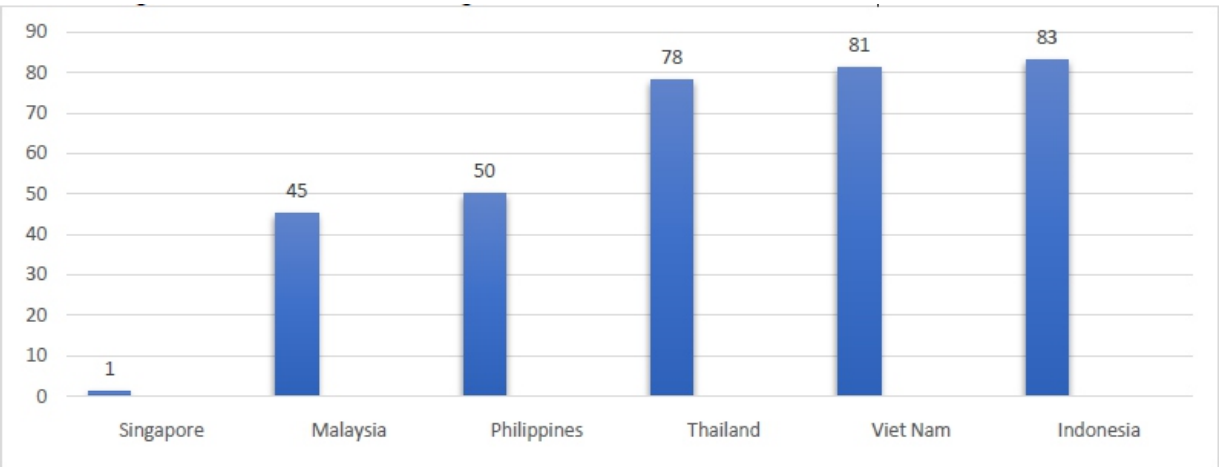
In the context of the industrial revolution 4.0 and the openness of the economy, business administrators are forced to quickly adapt in all aspects, in which the selection, arrangement and training of human resources bring efficiency business is more and more active and interested in businesses. Meanwhile, according to the Center for Forecasting Manpower Demand and Labor Market Information City. Ho Chi Minh City (Falmi), the demand for human resources in businesses is now developing towards attracting high-qualified human resources, trained human resources up to 82.92%. In which, the demand for human resources with university or higher degree accounts for 12.46%; college accounts for 17.04%; intermediate level accounts for 26.04%; primary vocational - skilled technical workers account for 27.38%.

Thirdly, Human resource training is being affected more and more by international integration and the industrial revolution 4.0, especially drastically changing the labor structure and the labor market. The automation system will gradually replace manual labor throughout the economy. At the same time, the shift from worker to machine will increase the difference between return on capital and return to labor, which will affect the income of simple labor and increase unemployment. According to estimates by the International Labor Organization (ILO), up to 86% of the workers in Vietnam's textile and footwear industries are at high risk of losing their jobs under the impact of technological breakthroughs caused by the industrialization. 4.0. This risk can translate into a small number of losses when industries such as Textile and Footwear have created a large number of jobs for domestic workers, requiring breakthrough solutions in vocational training, from renewing the legal framework and supporting policies of the State to innovation and international integration in training, improving the quality of vocational teachers and

raising awareness of parents and students on the roadmap apprenticeship and job opportunities for vocational human resources.

Forthly, one of the challenges facing developing countries when accessing the digital economy is highly skilled human resources. According to the data in the WEF's Report on the readiness for production in the future 2019, Vietnam ranked in the last group in the ranking of highly skilled workers, ranked 81/100, even after Thailand and the Philippines in the group of ASEAN countries. And also in this report, the ranking of the quality of vocational training in Vietnam is only 80/100, compared to the group of ASEAN countries, only ahead of Cambodia (92/100).

Chart 2. High-skilled labor index rankings of Vietnam and ASEAN countries



Source: WEF Readiness for Future of Production Report 2018

The current situation of human resources is difficult to make the best use of the opportunities that are coming to the country. If we do not quickly overcome this weakness, we will face new dangers and challenges, which will lead to the lag of the country. If we cannot solve the problem of improving the quality of human resources in the coming time, Vietnam will face the risk of a human resource quality crisis, the consequence of which is a decline in the competitiveness of the economy sacrifice; difficult to escape "middle income trap"; lost opportunities to join the international labor market. In addition, the low quality of human resources will also be a factor inhibiting the growth rate of labor productivity. Although Vietnam's labor productivity has improved significantly in the past period, narrowing the gap with more developed countries in the region, the reality is undeniable that Vietnam's labor productivity Male is still very low, in particular, the absolute difference in labor productivity when compared with Singapore, Malaysia or Thailand continues to increase. According to the World Bank, the quality of human resources in Vietnam reached 3.79 points (on a scale of 10), ranked 11th out of 12 countries surveyed in Asia. While Korea reached 6.91 points; India reached 5.76 points; Malaysia reached 5.59 points (Minh, 2020). Thus, our country's human resources still lack quality, lack of dynamism and creativity, and industrial style has affected the competitiveness of the economy.

Thus, the quality of human resources in Vietnam still has many formulas. The proportion of workers in the trained age group is still low, the shortage of skilled workers has not met the needs of labor schools and integration; the gap between the educational profession and the demand of the labor school is growing. At the same time, the transformation model and the economic structure change the supply and demand of labor, while the training branches in the school have not caught up with the trend of

employers. At the same time, according to experts, in order to develop high-quality human resources to meet the integration requirements in Vietnam in the short term and for a long time, it is necessary to take into account the quality factor of birth and population fostering. It cannot be said that the human resource develops when the children are broken, weak. Cannot said to the power source develops when energy is not being cultivated. This topic link to the other series of an element as the main social book, main health, salary policy, infrastructure construction policy... These issues are still not fundamentally resolved. It is impossible to mention high-quality human resources when the quality of higher education is low; infrastructure is still very poor; the rate of newly trained employees is only from 30 to 40%; foreign language skills, ability to use computers, poor information technology… Solutions to develop high-quality human resources to meet the requirements of international integration in Vietnam High-quality human resources have been and are "vital" factors, playing a particularly important role in the country's economic development. Therefore, it is necessary to have a more comprehensive and comprehensive solution system in the coming time. Firstly, focusing on building and completing an overall strategy, system of mechanisms and policies on developing high-quality human resources: Developing an overall strategy for developing high-quality human resources is a policy. Large and important task, requiring careful research, careful with breakthrough thinking and a long-term vision, consistent with reality. The strategy must clearly define the objectives, scale, roadmap and overall mechanisms and policies. In particular, the strategic goal must prioritize overcoming the conflicts between the development of quantity, quality and structure; determine the size, quantity and structure of each type of human resource accordingly. The strategy also develops a reasonable, highly predictable implementation roadmap, develops and completes specific mechanisms and policies to develop comprehensive and synchronous high-quality human resources. It is necessary to clearly define this is the central political task of the entire political system, in which it is necessary to soon unify awareness among socio-political associations, first of all, the core force that is directly operating in the field of research and strategic planning, policy, the impact of opportunities and challenges for our country since the industrial revolution 4.0.

The renewal and completion of mechanisms and policies to create a driving force for the development of high-quality human resources must be done synchronously in many aspects such as education -training, science - technology, environment employment, employment, income, social security, insurance, social protection, health care, labor market development, housing, living and settlement conditions... The State should continue to renovate institutions, perfect the legal corridor from the central to local levels in order to create a favorable environment for human resource development, and encourage the development of the high-quality human resource market; market and products of science and technology in the direction of integration, building a legal environment for the development of new business lines in Vietnam are starting to arise from the Industry 4.0. Second, there is a close connection between the training process with the training and the use of highquality human resources. The Government of Vietnam affirms: "Develop human resource development strategies for the country, for each industry, each field, with synchronous solutions, in which focus on solutions to training and retraining of resources human resources in schools". This poses a very high requirement for high quality human resources. Therefore, training institutions must always attach great importance to good management of the quality of "output products" through the forms of assessing trainees' ability to practice in the training process, reviewing training results, graduation results... instead of the current "input product" management. Training institutions also need to equip students and graduate students with necessary skills such as communication, research of foreign documents, use of information technology, creativity, adaptation, and grasping the development trend of the society... to ensure the close connection between training and

use, to meet the set requirements. The selection of sources for training and retraining not only places an emphasis on awareness criteria, but also attaches great importance to foreign languages, informatics, political bravery, professional ethics, and leadership capacity direction, management.

At the same time, to approach international standards and strengthen international cooperation in vocational training. Formulate and promulgate quality assurance conditions in vocational training towards approaching regional standards of ASEAN4 and developed countries in the G20 group; building a comprehensive, complete and reliable database on vocational training in order to well serve research and statistics related to the quality of vocational training and human resources; encourage and support pilot vocational training institutions to implement training programs transferred from abroad to draw experience for mass deployment, creating international-standard human resources for the domestic market and internationally. Thirdly, improve the quality of education and training at all levels, especially universities and colleges. This is an important solution that has decisive significance to the creation of high quality human resources in our country today. Right from the school level, especially the high school education, teachers and students' parents must orient their children's future in choosing a career that is suitable to their own abilities and strengths. Since then, focus on training and fostering in-depth in a field or field that I love, having full knowledge and skills after completing the course. In particular, in the current digital era, universities also need to research and add vocational training majors in ICT, blockchain, artificial intelligence (AI) to meet the demand human resources in Industry 4.0. In addition, another fact shows that Vietnamese workers are still limited in possessing soft skills, foreign language skills, teamwork, information technology skills and creativity. Many employees have been trained, but when working, they still do not meet the requirements, causing the employer to take time to retrain. Therefore, one solution is to equip students with soft skills right from the university, by including soft skills in training programs and output standards for students. Not only that, it is necessary to encourage and promote students' self-study, increase practical teaching from experts, entrepreneurs... not only 100% of knowledge is teaching teachers.

The reality of high-quality resources in our country is not much, mainly the average resource, that is, labor at the general education level, simple, skilled workers are very few. Therefore, most of the production and use of technology, machinery and equipment are imported from abroad, consult with foreign experts to support. Accordingly, conducting a review of training programs in schools; increase time for practice, reduce time to study theory; associating the training process with internship activities, sightseeing, embarking on work in each training discipline; promote cooperation activities, joint ventures, links between schools, training majors together, especially with businesses, manufacturers, investors, companies; recruiting students for training must ensure the quality, not chase the quantity; Educational institutions need to further develop into high-quality occupations: digital fields, information technology, energy, new materials, biotechnology... to help employees have can be mastered when the digital revolution explodes today. Forthly, link vocational training with the labor market, sustainable jobs and social security. To promote cooperation between vocational training institutions and job introduction centers, job exchanges and job fairs to assist learners in finding jobs after graduation; to attach importance to linking training with sending workers abroad; enhance communication, raise people's awareness of vocational training opportunities and roadmap, job opportunities and career roadmap for vocational human resources, contribute to promotion and enrollment for vocational training institutions; constantly update new job skills requirements and new vocational recruitment trends, build a portfolio of vocational skills for both present and future as a basis for design, update vocational training programs in accordance with practice; increase information about

vocational training programs targeting vulnerable groups, such as ethnic minorities, the poor, out-of-school adolescents, people with disabilities,... to create access opportunities apprenticeship and jobs for all subjects in society, not leaving anyone behind.

Fifth, enhance the State's management of high-quality human resources. Regardless of the conditions and circumstances, it is necessary to ensure the State's management and the Government's administration of production and business activities, using high quality human resources. The State is the person who promulgate mechanisms and policies for remuneration and use of high quality human resources, so the State needs to decentralize and assign tasks to agencies, departments and branches to manage human resources is effectively high quality, not to "brain drain" phenomenon. That is to train to create high human resources but not for the State but for foreign businesses. Develop and promulgate regulations and requirements for high-quality human resource training institutions; require high quality human resources when training but must work in the country, especially the State administrative apparatus, if violating, they will have to compensate, or ask other places not to recruit; set high demands for high-quality human resources to put the interests of the nation first, wholeheartedly, wholeheartedly serving the cause of building a democratic, civilized, rich and beautiful Vietnam have an increasingly high position in the international community; regularly check the process of high-quality human resources, if not meet, they will be discarded, or arranged, arranged in other places.

Create incentive mechanisms for business cooperation with schools to train properly and appropriately, closest to market needs. At the same time, it is necessary to improve the training quality of educational institutions, associate knowledge training with internships and practice in business establishments; to take measures for state management agencies to regularly receive feedback on the satisfaction level of enterprises with regard to the output "products" of training institutions.

CONCLUSION

Developing high quality human resources is an inevitable trend and requirement of Vietnam today. That not only creates a premise and material and technical foundations for socio-economic development in general, but also to continue promoting international integration in the context of the 4th scientific and technological revolution strong impact on nations and peoples. High-quality human resources, with a reasonable quantity and structure, rich in intelligence, rich in will and aspirations, with illuminating revolutionary ideals, will be the driving force for Vietnam to basically become a country soon industry in the direction of modernity, to meet the requirements of the 4th Industrial Revolution which is taking place strongly today. Therefore, it is necessary to have breakthrough and practical solutions to develop human resources.

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Effective Intervention in Reducing Depression in General Population during Pandemic of Covid-19

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ABSTRACT

The purpose of this narrative review is to provide an important overview of effective interventions in reducing depression to make it easier for doctors, nurses, and other health professionals to plan appropriate interventions to overcome and reduce depression in the general population based on evidence-based practice. The research method was carried out by conducting a quality research exploration on the research database via pubmed.gov. The types of articles selected were limited to articles published during 2020 and those related to depression due to the Covid-19 pandemic. The results showed that out of 410 articles obtained using the keyword "effective intervention for depression during pandemic covid-19", there were 3 (three) articles that relevant to the purpose of this review. Conclusion. Regular exercise activities and togetherness with family in carrying out daily activities accompanied by clean and healthy living behaviors can reduce depression and maintain a lower level of depression during the Pandemic of Covid-19.

Keywords:Depression; Effective intervention; Covid-19

INTRODUCTION

The Covid-19 pandemic that has occurred since December 2019 in Wuhan China has had a huge impact on human life globally, not only causing physical health problems but also triggering psychological disorders, one of which is depression. Covid-19 in the general population causes depression commonly at a moderate level.[1] Many studies have been conducted to look at the prevalence of psychological disorders during the Covid-19 Pandemic in 2020 and generally show a significant increase compared to before the Covid-19 Pandemic.[2]

The incidence of depression during the Covid-19 pandemic in the general population has increased significantly. Depression in the general population in China increases significantly with age, chronic illnesses, low income, the effects of the pandemic, and worries about suffering from Covid 19 during the Covid-19 pandemic.[3] The results of a systematic review on 14 studies with a sample size of 44,531 people showed that the prevalence of depression was 33.7%[4], other studies varied between 14,6%-48,3%.[2] An increase in psychological disorders including depression, stress and anxiety have been shown to occur in the UK especially in younger people, women, and individuals identified as a group at risk for Covid-19 exceeding the incidence in the normal population.[5] Depression was found to be higher in women aged 18-19 years, single, students, and had a low income compared to the expenditure among others of the general population. This is related to their habit of using social media compared to others, getting excessive and inaccurate information that can trigger depression. Those who moved during the quarantine period, experienced loneliness, fear of dying, helplessness, sleep disturbances, felt useless and worthless, started smoking and drinking alcohol, experienced moderate depression.1 Depression is predicted to result in an increase in alcohol consumption and Cannabis use in adolescents. Handling the harmful effects of Covid-19 on mental health must be a priority for international public health. Interventions that are effective in reducing the occurrence of depression in people affected by the Covid-19 pandemic need to be explored and summarized from various quality studies.

METHODS

From the exploration results via pubmed.gov by entering the keyword "effective intervention for depression during the Covid-19 pandemic", 401 articles were obtained. Of the 401 articles, they were reviewed one by one to find research articles that presented effective interventions in reducing depression during the Covid-19 pandemic and obtained 3 relevant articles. The selection of articles was carried out following the research objectives (purposive sampling). This research was conducted in December 2020.

RESULTS

From the results of a review of 401 articles, 3 articles were obtained related to effective interventions in reducing depression that occurred in people affected by the Covid-19 pandemic. The following articles are each as follows:

1. "Beneficial Effects of Exercise on Depression and Anxiety During the Covid-19 Pandemic: A Narrative Review". From this article, it was found that increasing light activity and reducing behavior can be beneficial in reducing depressive behavior. Regular exercise also has benefits against depression. Physical exercise outside the home if not available during the Covid-19 Pandemic, can be done by exercising indoors. This is recommended because it can relieve depression and anxiety, in addition to improving the immune system. Exercise strategies can be done with a duration of 150 minutes of moderate-intensity activity or 75 minutes of vigorous-intensity per week or do both with modifications according to each individual's ability. Home exercises that can be done include squats, knees to elbows, side knee lifts, planks, back extensions, "superman," chair dips, "Bridge," seated meditation, chest opener, and legs up the wall. Activities outside the home can be carried out according to local government policies in the field or park while maintaining a physical distancing. Various exercise programs can be carried out, including aerobic exercise, balance training, resistance, coordination, and other exercise activities. When carrying out exercises outside the home, it is recommended not to use public available training equipment to prevent transmission of the virus. Thus regular physical activity during a pandemic is very beneficial in dealing with depression.[6]

2. "Determining depression and related factors in a society affected by COVID-19 pandemic". This article is not an intervention research study, but a descriptive study with a cross-sectional design. However, something is interesting from this study where it was found that the depression score of those who spent time with their family, spent time with them, were busy with studying at home, or worked had lower depression than the others. Besides, those who carried out the behavior of walking, exercising, sleeping regularly, and consuming a balanced diet, and praying had lower levels of depression than others. Thus from this study, it is concluded that depression can be reduced by carrying out joint activities with family and daily activities carried out from home and that clean and healthy living habits are beneficial in reducing and maintaining low levels of depression during the Covid-19 Pandemic.1

3. "A longitudinal study on the mental health of the general population during the COVID-19 epidemic in China". This study is a longitudinal study and not research related to the effectiveness of the intervention. However, the results of this study can provide an overview of the basis for effective interventions in reducing the occurrence of depression that occurs in the general population. The results of this study indicate that there are no significant changes in the levels of stress, anxiety, and depression between the start of the pandemic and the four weeks thereafter. However, it is interesting that there are protective factors that include high trust in doctors, perception of the possibility of survival, low risk of

suffering from Covid-19, satisfaction with health information, and personal precautions.[7] This study suggests interventions that are based on research results that to reduce depression in the general population, they need to be provided with unbiased knowledge about Covid-19, teach correct coping methods, ensure the availability of health services and daily necessities and financial support during the Covid-19 Pandemic.

DISCUSSIONS

This research has explored various important and quality articles related to interventions in reducing depression that occur in society as presented in the description of the research results. Literature 1 shows that an effective intervention in reducing and overcoming depression during the Covid-19 pandemic is to carry out regular exercise activities. Exercise activities can be done through activities with moderate intensity or with strong intensity. Activities can be carried out at home or outside the home with due observance of government policies regarding restrictions on activities outside the home. This has proven to be effective in reducing and overcoming depression due to the Covid-19 pandemic.

However, several interventions, especially from literature 2 and 3, are still the thoughts of the analysis of the literature and have not been tested for their effectiveness. Both kinds of literature were included because there was still a lack of literature that could prove the effectiveness of interventions in reducing depression during the Covid-19 Pandemic in the community. In literature 2, the role of the family as a support system is very important in reducing and overcoming depression during the Covid-19 pandemic. Before the Covid-19 pandemic, most people were busy with activities outside the home and many of them only spent a little time with their nuclear family at home. The occurrence of the Covid-19 pandemic which was followed by a lockdown policy or restrictions on activities outside the home created a new situation where families became more often together at home. This togetherness should be optimized by doing activities together and creating intensive and happy interactions to reduce depression due to various risk factors. From the third literature, it seems that health information is important for depression during the Covid-19 pandemic. Excessive information exposure makes adolescents the largest group of social media users, making this group experience the highest depression compared to other groups. However, it appears that this can be different when the information obtained is satisfied, unbiased and not exaggerated. The quality of health information is of key importance in maintaining the mental health of the general population and reducing depression. The information available in the mass media needs to endeavor in such a way as to reduce information that is a hoax in nature and misleading, unbiased, and the quality of information should be able to satisfy the needs of the general population. Important psychological support is given to patients suffering from Covid-19 and health workers who work with Covid 19 patients, however, the mental health of the general population also requires important attention. The research articles obtained in general are more focused on the prevalence of psychological disorders due to the Covid-19 pandemic and not much research has been done to find solutions to reduce depression that occurs in the general population due to the Covid-19 pandemic.

CONCLUSION

Regular exercise activities and togetherness with family in carrying out daily activities accompanied by clean and healthy living behaviors can reduce depression and maintain a lower level of depression during the Covid-19 pandemic.

LIMITATIONS AND FUTURE STUDIES

Researchers need to study more to find solutions to depressive conditions occurring in the general population rather than obtaining data only regarding the prevalence of health mental disturbances.

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Confirmatory Factor Analysis and Norming of the High School Student's Entrepreneurial Orientation Scale

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ABSTRACT

Several studies have shown that entrepreneurial orientation in high school students can predict career choices as businessmen in the future. However, not many studies have developed a measurement instrument for entrepreneurial orientation in high school students in one solid variable construct. This study aims to conduct confirmatory factor analysis and norming on a scale that was previously explored. A survey of 646 high school students was conducted in six large cities throughout the provinces on Java Island, Indonesia. The results of this research confirmed that the construct of entrepreneurial orientation in high school students has three dimensions: innovativeness, risky proactiveness and competitiveness. The study also produced a norm index for junior and senior high school students. This scale will be useful in mapping the level of student's entrepreneurial orientation and assist high school management bodies to prepare programs that are more suitable to developing entrepreneurial behavior in students.

Keywords : Entrepreneurial; High school; Student; Scale; Adolescence

INTRODUCTION

A person's career choice to be self-employed or a business owner can be predicted through their entrepreneurial orientation since adolescence or while they are in high school. Schmitt-Rodermund & Vondracek (2002) proved that entrepreneurial orientation is an important predictor of the entrepreneurial prospects of 10th grade students (aged 14-17 years old), i.e. the desire to be self-employed when they are 40 years old. A longitudinal study of thousands of high school students in the US showed that a student's entrepreneurial orientation influences their future career prospects of establishing a business in ten years' time (Saw & Schneider, 2012).

Unfortunately, not many studies have developed measurement instruments for entrepreneurial orientation in high school students. Schmitt-Rodermund & Vondracek (2002) measured entrepreneurial orientation based on three variables: entrepreneurial interest, entrepreneurial skills and entrepreneurial behavioral traits. Meanwhile, Saw & Schneider (2012) measured entrepreneurial orientation without using a scale, but based on a single question about occupational aspirations to be a business owner, which were seen as an indication of entrepreneurial orientation in adolescence. Although these two studies prove the strong role of entrepreneurial orientation as a predictor of one's future career, not many studies have developed a high school entrepreneurial orientation scale specifically developed based on one solid construct variable.

This high school entrepreneurial orientation scale is necessary for teachers and counselors in high schools to be able to map the level of students' entrepreneurial orientation so that high school management bodies can develop their curriculum or extra curricula activities to be more suited to fostering entrepreneurial behavior in their students.

When entrepreneurial orientation was first introduced by Miller & Friesen (1982), this construct was discussed more from an organizational level perspective as an entrepreneurial model in companies that regularly innovate and take risks in developing strategies to launch their products to the market. Miller

(1983) perfected this concept by adding the concept of proactive strategies aimed at getting rid of their competitors. This concept, which was still abstract, was further concreted by Covin & Slevin (1989), who outlined the three entrepreneurial dimensions of proactiveness, innovativeness and risk-taking. Lumpkin & Dess (1996) then added two additional entrepreneurial dimensions: autonomy and aggressive competitiveness. However, all of these entrepreneurial dimensions were at the organizational or top leader level, not for the members of the organization.

An entrepreneurial scale at the individual level was first examined by Bolton (2012), who developed the scale for potential business owners as individual people. Previously, Bolton & Lane (2012) had also examined the individual entrepreneurial orientation of university students. Gorostiaga, et al (2019) developed an entrepreneurial orientation scale for vocational training students aged between 16 and 57 years. Until now, an entrepreneurial orientation scale has only been developed for high school's students by Kurniawan, et al (2019).

Research on entrepreneurial orientation in high school students conducted by Kurniawan, et al (2019) produced different exploratory factor analysis results to research conducted by Bolton and Lane (2012) on entrepreneurial orientation in university students. Bolton and Lane (2012) proved that there are three dimensions of entrepreneurial orientation in university students: innovativeness, proactiveness and risk-taking. Meanwhile, Kurniawan, et al (2019) found that there are three different dimensions of entrepreneurial orientation in high school students: innovativeness, risky-proactiveness and competitiveness. This difference in research results necessitates a specific study on entrepreneurial orientation in high school students and the development of a norm index for entrepreneurial orientation norms in high school students.

In the early stages of their research, Kurniawan, et al (2019) explored items based on the five dimensions developed by Lumpkin & Dess (1996): proactiveness, innovativeness, risk-taking, autonomy and aggressive competitiveness. Based on this initial exploration stage, Kurniawan, et al (2019) swapped the aggressive competitiveness dimension with a competitiveness dimension based on personal development competitive behavior (Ryckman, et al, 1996), because it is more suitable in the context of high school students.

Based on Lumpkin and Dess's (1996) concept, the proactiveness dimension is the initiative to take a role in situations that offer opportunities or require change. The dimension of innovativeness is the behavior of seeking opportunities, thinking of new or creative ways to respond to the opportunities found, striving to produce these creative strategies, and initiating their application. The dimension of risk-taking is taking brave actions in uncertain situations, in which there is a possibility of failure or loss as a result of the efforts made (Miller & Friesen, 1982; Covin & Slevin,1989; Lumpkin & Dess, 1996; and de Jong & Wennekers, 2008).

According to Lumpkin & Dess (1996), the dimension of autonomy is an action initiated and carried out by oneself to do something new and to believe that it will be a success. Meanwhile, the dimension of competitiveness proposed by Kurniawan, et al (2019), adapted from the concept of personal development competitiveness, is an attitude that focuses more on competitiveness in the sense of self-development, rather than simply winning (Ryckman, et al., 1996).

In the exploratory factor analysis stage, Kurniawan, et al (2019) found that only four dimensions or components were meaningful. These four components included three dimensions that had been explored previously: innovativeness, competitiveness, and autonomy, while the remaining dimension is a combination of the proactiveness and risk-taking dimensions, which was then called risky proactiveness. In the discussion, it was explained that high school students who act proactively and take the initiative to make changes may experience rejection from their peers. For high school students who are at the adolescent development stage, peer rejection is a high-risk consequence because adolescents have a need for conformity with their peers. As a result, for high school students, all proactive actions also involve their own risks (Kurniawan, et al., 2019; Frese & Fay, 2001; Santor et al., 2000; Sandstrom,1999; Bradutanu, 2015; Lumpkin & Dess, 1996).

During the external validity test for entrepreneurial intention conducted by Kurniawan, et al (2019), only three dimensions were found to significantly correlate: innovativeness, risky-proactiveness and competitiveness. Meanwhile, the dimension of autonomy did not significantly correlate with entrepreneurial intention. Lumpkin dan Dess (1996) developed the dimension of autonomy at the organizational level, illustrating the need for company management to provide their employees with the freedom to undertake entrepreneurial actions. This is not so relevant when applied to the construct of entrepreneurial orientation at the individual level. Many founders establish their businesses together with a partner, rather than alone, meaning that autonomy is no longer an absolute dimension in entrepreneurial orientation (Kurniawan, et al., 2019; Rauch, et al (2009); Bolton dan Lane; 2012).

This research is a continuation of the Exploratory Factor Analysis conducted by Kurniawan, et al. (2019). In their research, three dimensions were found to be relevant to the high school student entrepreneurial orientation scale: innovativeness, risky-proactiveness and competitiveness. Kurniawan, et al (2019) recommended that further research conduct a confirmatory factor analysis on a larger number of subjects in relation to the three dimensions and scale items developed in their research. Kurniawan, et al (2019) also suggested that further research needs to develop an entrepreneurial orientation norm index for junior and senior high school students so that they can be more specifically identified, mapped and acted upon by entrepreneurship teachers and school management. Therefore, this study aims to conduct a confirmatory factor analysis and develop norming for the high school student entrepreneurial orientation scale developed by Kurniawan, et al (2019).

METHODS

This research was conducted based on the data of 646 high school students from six large cities throughout the provinces on Java Island, Indonesia. These six large cities are Jakarta, Tangerang, Bandung, Semarang, Yogyakarta and Surabaya. This research consists of two stages:

Stage one: Confirmatory Factor Analysis

In this research, the high school student entrepreneurial orientation scale, which was tested using exploratory factor analysis and an external validity test by Kurniawan, et al (2019), was tested using confirmatory factor analysis. Kurniawan, et al (2019)'s research, which was conducted on 368 high school students, proved that the Indonesian language scale measured by a 5-point Likert scale (1 = very rarely to 5 = very often), has three entrepreneurial orientation dimensions that are relevant for high school students: innovativeness, risky proactiveness and competitiveness. Based on this result, the Cronbach α reliability for the three dimensions is > 0.7 in order to meet the standard cut-off point for scale development (Nunnally & Bernstein, 1994). The innovativeness dimension has seven valid items

with CITC 0.402–0.651 and α = 0.791. The risky proactiveness dimension has nine valid items with CITC 0.562–0.659 and α = 0.871. Meanwhile, the competitiveness dimension has eight valid items with CITC 0.414–0.681 and α = 0.823.

This research was conducted through an online survey. All participants gave informed consent before completing the survey.

Stage two: Norming

Norm indexes are arranged according to five categories, "Very High", "High", "Medium", "Low", and "Very Low" based on the normal data distribution. In this study, norms will be arranged based on junior and senior high school groups.

RESULTS

This research was conducted on 646 high school students with the characteristics listed in Table 1.

Table 1. Participant Characteristics (n = 646)

Variable	Item	Frequency	Percentage
Gender	Male	329	50.93
	Female	317	49.07
Age	12 years old	45	6.97
	13 years old	136	21.05
	14 years old	121	18.73
	15 years old	103	15.94
	16 years old	175	27.09
	17 years old	60	9.29
	18 years old	4	0.62
	19 years old	2	0.31
High School Level	Junior High School	320	49.54
	Senior High School	326	50.46
City	Jakarta	108	16.72
	Bandung	109	16.87
	Tangerang	102	16.72
	Semarang	109	16.87
	Yogyakarta	109	16.87
	Surabaya	109	16.87

The assumption test for this study uses multivariate normal distribution analysis with kurtosis value. If a distribution has a kurtosis value that exceeds 3, it is labeled "peaked" relative to the normal, and if its kurtosis value is less than 3, it is labeled "flat" relative to the normal. (Mason & Young, 2002). Following are the kurtosis values for the confirmatory factor analysis results from this study: innovativeness dimension = 8.423, risky proactiveness dimension = 10.038; competitiveness dimension = 14.756, and the kurtosis value for second order analysis = 92.211. Thus, all confirmatory factor analysis tests in this study have a kurtosis value of more than 3.0, meaning they are labeled "peaked" relative to the normal or not fulfill the normality assumption test.

Although the research did not pass the multivariate normal distribution test, the study's sample size included more than 100 respondents and can, therefore, be assumed to be normally distributed (Katz, 2011). Thus, the research data fulfil the multivariate parametric test requirement. Parametric tests are preferred in multivariate situations due to the fact that non-parametric tests currently available are generally insufficient to test multivariate situations due to a lack of suitable specifications, for example strength, breadth of use, and extension of non-parametric tests in such situations (Hubbard,1978).

The first order confirmatory factor analysis test results for the innovativeness dimension are listed in Figure 1.

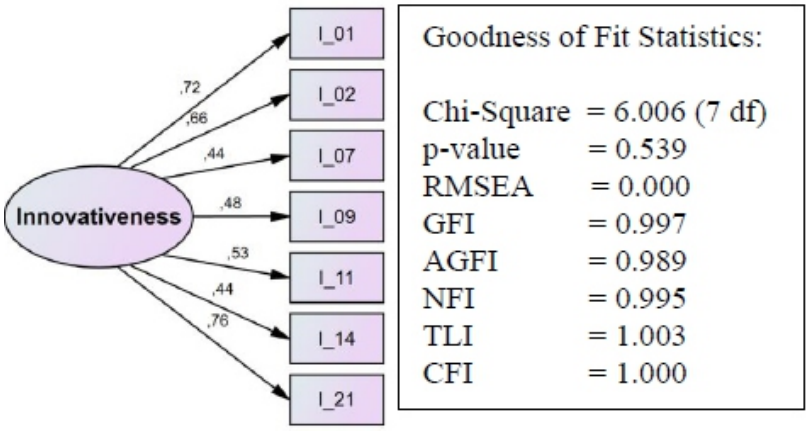

Figure 1. Confirmatory Factor Analysis for the Innovativeness Dimension

The confirmatory factor analysis results in Figure 1 show that all item groups for the innovativeness dimension are good and according to the design. All Goodness of Fit measurements meet the Good Fit criteria according to Schermelleh-Engel, Moosbrugger & Mülleret (2003). The loading factors of all items in this dimension are > 0.5. Construct Reliability (CR) for the innovativeness dimension is 0.782 (CR > 0.7) and the Average Variance Extracted (AVE) is 0.548 (AVE > 0.5), meaning the convergence indicator for this construct is fulfilled (Hair, et al., 2010). Detailed results of loading factors, errors, AVE and CR are listed in Table 2.

The first order confirmatory factor analysis test results for the risky proactiveness dimension are listed in Figure 2.

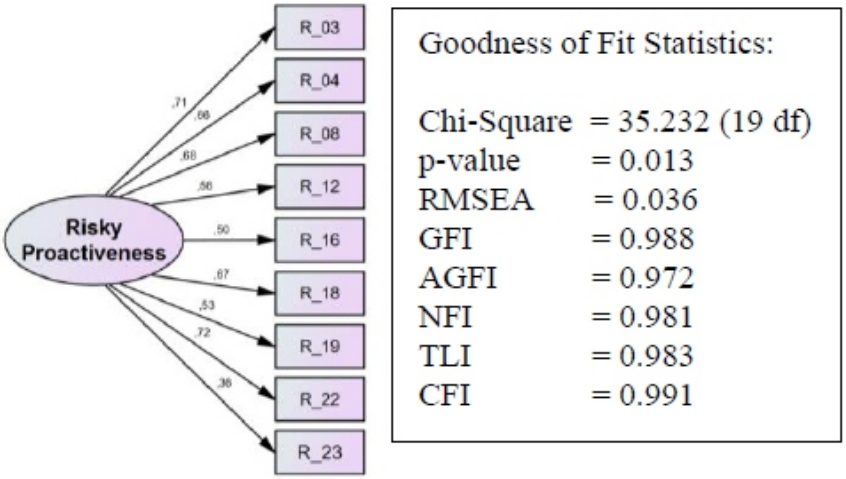

Figure 2. Confirmatory Factor Analysis for the Risky Proactiveness Dimension

The confirmatory factor analysis results in Figure 2 show that all item groups for the risky proactiveness dimension are good and according to the design. All Goodness of Fit measurements fulfil the Good Fit criteria, except for the p-value of chi-square, which is in the 0.01 – 0.05 range, meaning it meets the "acceptable" criteria (Schermelleh-Engel, Moosbrugger & Mülleret, 2003). The loading factors of all items in this dimension are > 0,5.

Construct Realibility (CR) for the risky proactiveness dimension is 0.857 (CR > 0.7), and the Average Variance Extracted (AVE) is 0.604 (AVE > 0.5), meaning the convergence indicator for this construct is fulfilled (Hair, et al., 2010). Detailed results of the loading factors, errors, AVE and CR are listed in Table 3.

Table 2. CFA Results for the Innovativeness Dimension

	Item	Loading Factor	Errors	CR	AVE
I_01	The things I do (assignments/creations) are considered by my friends to be creative.	0.72	0.398		
I_02	The results of my work have different characteristics to my friends.	0.66	0.457		
I_07	The ideas or solutions that I present are accepted by others.	0.44	0.526	0.782	0.548
I_09	The ideas or solutions that I present are useful for others (e.g. friends, teachers, etc.).	0.48	0.538		
I_11	I have creative ways to convince others to accept my ideas.	0.53	0.683		
I_14	I have multiple ways to solve my problems.	0.44	0.536		
I_21	I can be creative with school projects or tasks.	0.76	0.42		

The first order confirmatory factor analysis test results for the competitiveness dimension are listed in Figure 3.

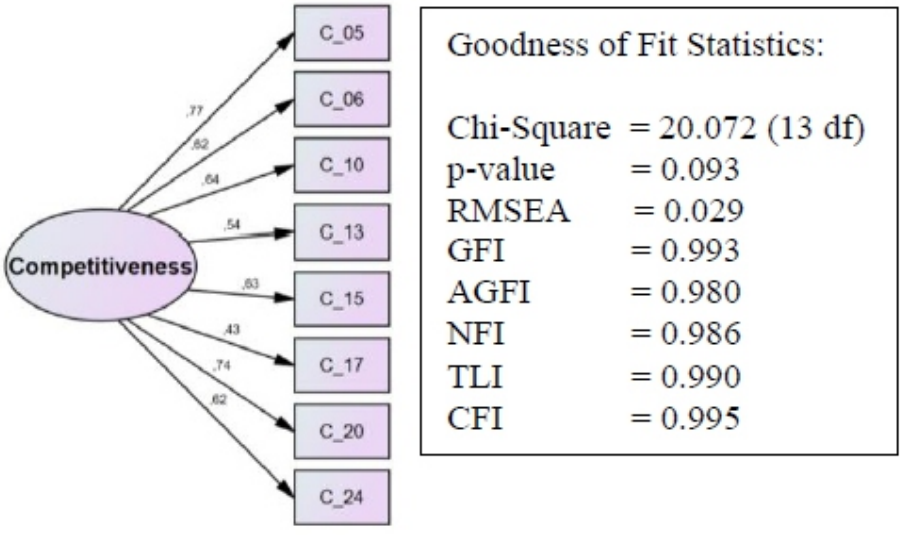

Figure 3. Confirmatory Factor Analysis for the Competitiveness Dimension

The confirmatory factor analysis results in Figure 3 show that all item groups in the competitiveness dimension are good and according to the design. All Goodness of Fit measurements fulfil the Good Fit criteria according to Schermelleh-Engel, Moosbrugger & Mülleret (2003). The loading factors of all items in this dimension are > 0,5. Construct Realibility (CR) for the competitiveness dimension is 0.858

(CR > 0.7) and the Average Variance Extracted (AVE) is 0.644 (AVE > 0.5), meaning the convergence indicator for this construct is fulfilled (Hair, et al., 2010). Detailed results of the loading factors, errors, AVE and CR are listed in Table 4.

The internal validity of the Confirmatory Factor Analysis results shows that each dimension has a corrected item-total correlation (CITC) score of above 0.2, which indicates a high level of correlation (Streiner, Norman, & Cairney, 2015), and Cronbach's α reliability > 0.7 (Nunnally & Bernstein, 1994). The innovativeness dimension has seven valid items, with CITC = 0.438 - 0.610 and α = 0.806. The risky proactiveness dimension has nine valid items, with CITC = 0.437-0.628 and α = 0.845. The competitiveness dimension has eight valid items, with CITC = 0.404-0.630 and α = 0.817.

The second order confirmatory factor analysis test results for the entrepreneurial orientation construct are listed in Figure 4. The confirmatory factor analysis results in Figure 4 show that all item groups for the entrepreneurial orientation construct are good and according to the design. All Goodness of Fit measurements fulfil the Good Fit criteria according to Schermelleh-Engel, et al. (2003). The scale has been registered Copyright at the Ministry of Law and Human Rights of the Republic of Indonesia, number EC00201950720 dated 14 August 2019.

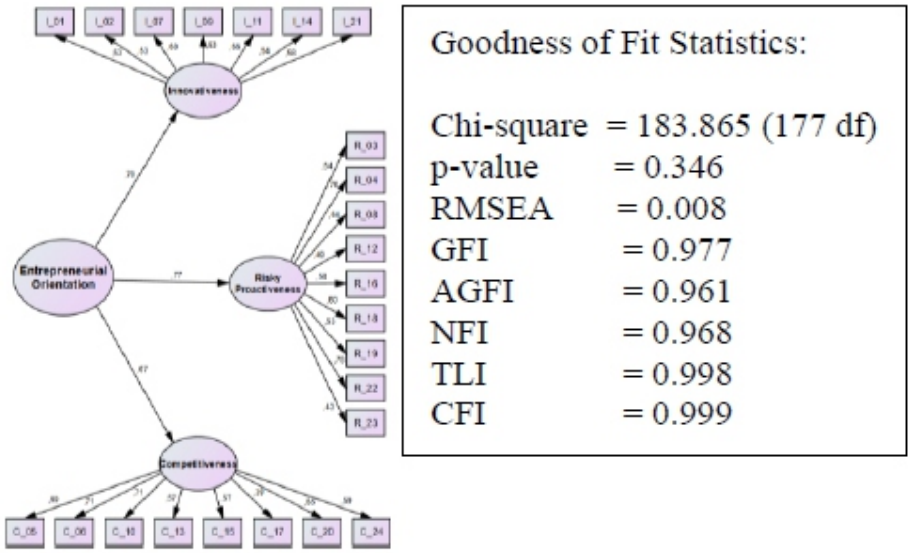

Figure 4. Confirmatory Factor Analysis for the Entrepreneurial Orientation Construct

The norm index for the junior high school group, based on the normal distribution of data and divided into five categories, is listed in Table 5. The norm index for the senior high school group, based on the normal distribution of data and divided into five categories, is listed in Table 6.
The Pearson's correlation coefficient between the students' age and entrepreneurial orientation did not reveal a significant correlation (r = 0.048; p = 0.224; p > 0.05).

There was also no significant correlation between the students' age and risky proactiveness (r = 0.038; p = 0.333; p > 0.05). Likewise, there was no significant correlation between the students' age and competitiveness (r = -0.011; p = 0.780; p > 0.05). Only the innovativeness dimension showed a significant positive correlation with students' age, although not very strong (r = 0,100; p = 0.011; p < 0.05).

Table 3. CFA Results for the Risky Proactiveness Dimension

	Item	Loading Factor	Errors	CR	AVE
R_03	I am brave enough to ask the teacher questions, despite the possibility of being scolded by the teacher or ridiculed by my friends.	0.71	0.678		
R_04	I offer my opinion before being asked by the teacher or my friends.	0.66	0.631		
R_08	I am brave enough to express my opinions, even though they might not be accepted.	0.68	0.565		
R_12	I take the initiative to ask if things are unclear.	0.56	0.730		
R_16	I motivate my friends to be more actively involved in class.	0.5	0.841	0.857	0.604
R_18	I am brave enough to answer the teacher's questions, even though I might be wrong.	0.67	0.664		
R_19	I take the initiate to invite my friends to discuss problems in class.	0.53	0.896		
R_22	I am brave enough to express opinions that are different to my friends.	0.72	0.464		
R_23	I take the initiative to ask my friends to participate in school events or competitions.	0.36	0.158		

The students' gender also had little impact on their entrepreneurial orientation. According to independent T-Test samples, only the risky proactiveness dimension revealed different scores when viewed in terms of gender (T-Test = 2.718; $p = 0.003$; $p < 0.05$). The mean risky proactiveness score for male students (28.757) was greater than that of the female students (27.372).

DISCUSSION

The results of the confirmatory factor analysis in this study prove that the three dimensions of the high school student entrepreneurial orientation scale developed by Kurniawan, et al (2019) are valid and in accordance with the construct. The initial concept for the innovativeness dimension is the act of exploring challenges, developing creative ideas, striving to realize these ideas and starting to apply them (Covin & Slevin, 1989; De & Wennekers, 2008; Lumpkin & Dess, 1996; Miller & Friesen, 1982). The results of the focus group discussions held by Kurniawan, et al (2019) outline that the challenges explored in the high school context were tasks that must be completed by school students, both in the form of artistic creations and specific projects. Problems in school are also opportunities that can be explored by high school students in order to produce creative ideas that manifest themselves in creative works, projects or problem solutions.

The high school students had not been able to implement their creative ideas in broader projects due to limitations in the curriculum and teaching methods in schools. When this research was carried out, the high school education system still implemented the Indonesian national exam as a requirement. As a result, the curriculum and teaching processes applied to high school students were more focused on summative assessment, limiting the students' opportunities to implement their own creative ideas. Teachers were also powerless in developing their curriculum and teaching methods because of policies that limited them to utilizing only the standardized curriculum (Tim Redaksi Kanisius, 2008; Surakhmad, 2009). This assertion is supported by Banaji, Cramer and Perrotta (2014) in their qualitative research conducted on school stakeholders, which found that the implementation of creativity in schools was constrained by the traditional curriculum and assessment, teaching methods that are monotonous and do not value differences, and not allowing students to use digital technology. Thus, reasonable forms of innovativeness in high school students are as outlined in the innovativeness dimension items in this scale.

Table 3. CFA Results for the Risky Proactiveness Dimension

	Item	Loading Factor	Errors	CR	AVE
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R_22	I am brave enough to express opinions that are different to my friends.	0.72	0.464		
R_23	I take the initiative to ask my friends to participate in school events or competitions.	0.36	0.158		

Unlike adults, whose proactive actions are not perceived as risks, for high school students in the adolescent development stage, proactive actions are perceived as extremely risky. Proactive actions, such as expressing opinions to peers or teachers or taking the initiative to encourage others to do something, run the risk of rejection from peers. For adolescents, peer rejection can impact their psychological condition as this developmental stage requires conformity from peers (Kurniawan, et al., 2019; Frese & Fay, 2001; Santor et al., 2000; Sandstrom,1999; Bradutanu, 2015; Lumpkin & Dess, 1996).

Teenagers who act proactively despite the risk of peer rejection indirectly train themselves to cope with situations where their ideas, capital proposals or movements are rejected by venture stakeholders. Pittz & Liguori (2020) stated that a successful entrepreneur must be accustomed to, and even immune to, experiencing rejection so that they can be consistent in what they will achieve. This view has long been proven by Buttner and Rosen (1992) that entrepreneurs, irrespective of gender, are prepared for rejection when applying for a loan with the bank and acknowledge that this rejection would be due to their own shortcomings in developing their business plan and not the result of subjective bias. Therefore, actions classified as risky proactiveness, such as those outlined in the items of this scale, may indicate the extent to which teenagers are ready to overcome business rejection in their adulthood.

Table 4. CFA Results for the Competitiveness Dimension

	Item	Loading Factor	Errors	CR	AVE
C_05	I try to find solutions for mistakes that I make.	0.77	0.311		
C_06	I try to do better than my previous results.	0.62	0.376		
C_10	I learn from my past mistakes in order to achieve better results.	0.64	0.397		
C_13	Mistakes that I make do not discourage me from trying again.	0.54	0.569	0.858	0.644
C_15	I am to get better grades than my previous report card grades.	0.63	0.483		
C_17	I ask for advice from my teachers or parents to improve my results.	0.43	0.997		
C_20	I try hard to achieve my target results.	0.74	0.305		
C_24	I make the most of my time in order to improve my results.	0.62	0.520		

Aggressively competitive behavior, as one of the entrepreneurial orientation dimensions developed by Lumpkin & Dess (1996), is not relevant to the context of high school students. According to Bolton & Lane (2012), it is more suitable to apply aggressive competitive behavior in business situations that are full of risks and, therefore, is less relevant when applied to the context of high school students (Kurniawan, et al, 2019). The competitiveness dimension in this scale refers more to the construct of personal development competitiveness developed by Ryckman, Hammer, Kaczor, & Gold (1996). Learning from failure, asking for feedback from teachers and parents, and striving to achieve better results are forms of competitive behavior that are more relevant to high school students.

Andre (2013) proved that many entrepreneurs exhibit more personal development competitive behaviors than ones that are aggressive or hypercompetitive. The results of a study conducted on high school and university students proved that personal development competitiveness correlates positively with motivation to perform well (Orosz, et al., 2018). Meanwhile, the results of the Collins, Hanges & Locke (2004) meta-analysis indicate that motivation to perform well correlates significantly with entrepreneurial career choices and entrepreneurial performance. Thus, personal development competitive behaviors, such as those outlined in the competitiveness dimension items in this scale, may indicate career choices and good performance as an entrepreneur in the future.

The norm index results show that senior high school students have higher norm standards than junior high school students, especially for the innovativeness and the risky proactiveness dimensions. The study also revealed a positive correlation between students' age and innovativeness, although the correlation was not very strong. Parsons' (2015) literature review found that the higher a person's age, the higher their propensity for innovation until the peak age of around 50 years, after which it will decrease. High school aged students, who are still far below 50 years, are still in the stage of improvement, meaning the standard norm of innovativeness for senior high school students is higher than for junior high school students. The results of Card & Little's (2006) meta-analytic review indicate that the higher a teenager's age, the more their reactive aggression turns into proactive action. This explains why the risky proactiveness norm standard is higher in senior high school students than in junior high school students.
The study results also indicate that male students have stronger risky proactiveness than female students. Previous research conducted on small and medium-sized enterprise owners has also proven that there are differences in risk-taking and proactiveness between genders (Neneh, Zyl and Noordwyk, 2016). This finding is also in agreement with the results of a study conducted by Kumar, Paray & Dwivedi (2020), which proved that male university students are more proactive than female university students. Likewise, Kurniawan's (2015) research proved that male university students are more risk-taking and proactive than female university students. Women are often stereotyped as having more emotional and nurturing traits, while men are stereotyped as being aggressive and independent. These stereotypes lead them to behave in accordance with expectations and, as a result, female students are less bold in taking initiative and risks compared to male students (Kurniawan, 2015).

Table 5. Norm Index for Junior High School Students

Construct	Very Low	Low	Medium	High	Very High
Innovativeness	≤ 14.60	14.61 - 19.20	19.21 - 23.80	23.81 - 28.40	≥ 28.41
Risky Proactiveness	≤ 18.20	18.21 - 24.40	24.41 - 30.60	30.61 - 36.80	≥ 36.81
Competitiveness	≤ 21.25	21.26 - 25.94	25.95 - 30.63	30.64 - 35.31	≥ 35.32
Entrepreneurial Orientation	≤ 57.25	57.26 - 70.19	70.20 - 83.13	83.14 - 96.06	≥ 96.07

Table 6. Norm Index for Senior High School Students

Construct	Very Low	Low	Medium	High	Very High
Innovativeness	≤ 16.25	16.26 - 20.94	20.95 - 25.63	25.64 - 30.31	≥ 30.32
Risky Proactiveness	≤ 19.40	19.41 - 25.80	25.81 - 32.20	32.21 - 38.60	≥ 38.61
Competitiveness	≤ 18.40	18.41 - 23.80	23.81 - 29.20	29.21 - 34.60	≥ 34.61
Entrepreneurial Orientation	≤ 56.80	56.81 - 75.10	75.11 - 93.40	93.41 - 111.70	≥ 111.71

The theoretical implications of this study are adding insight into the development of the entrepreneurial orientation scale for high school students and its norming. This research also has practical implications for secondary school teachers and counsellors in mapping their students' entrepreneurial orientation levels. Based on this mapping of students' entrepreneurial orientation, secondary school management bodies can prepare a curriculum or extra-curricular activities that are more appropriate to developing entrepreneurial behaviors in students.

A limitation of this study is its population, which were all private schools. Further studies are recommended to validate and develop this scale in public high schools. The study also does not identify the socioeconomic status (SES) of the students and further studies are, therefore, recommended to examine the relationship between students' SES and entrepreneurial orientation.

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Appendix 1: High School Student's Entrepreneurial Orientation Itemsin Indonesian language

Innovativeness Dimension

I_01 Hal yang saya kerjakan (tugas/karya) dianggap kreatif oleh teman-teman saya.
I_02 Hasil karya saya memiliki ciri khas yang berbeda dengan teman-teman yang lain.
I_07 Ide atau solusi yang saya berikan diterima oleh orang lain.
I_09 Ide atau solusi yang saya berikan bermanfaat bagi orang lain (mis: teman,guru, dsb).
I_11 Saya memiliki cara yang kreatif untuk meyakinkan orang lain agar ide saya diterima.
I_14 Saya memiliki beberapa cara untuk menyelesaikan masalah saya.
I_21 Saya dapat membuat karya yang kreatif dalam proyek-proyek atau tugas sekolah.

Risky Proactiveness Dimession

R_03 Saya berani bertanya kepada guru walaupun ada kemungkinan untuk dimarahi guru atau diejek teman saya.
R_04 Saya mengusulkan pendapat sebelum diminta oleh guru atau teman saya.
R_08 Saya berani mengungkapkan pendapat walaupun belum tentu diterima.
R_12 Saya berinisiatif untuk bertanya ketika ada hal yang kurang jelas.
R_16 Saya menggerakkan teman-teman untuk lebih terlibat aktif di kelas.
R_18 Saya berani menjawab pertanyaan guru walaupun belum tentu benar.
R_19 Saya berinisiatif mengajak teman-teman mendiskusikan permasalahan yang ada di kelas.
R_22 Saya berani menyampaikan pendapat yang berbeda dengan teman-teman yang lain.
R_23 Saya berinisiatif mengajak teman-teman saya untuk berpartisipasi dalam acara atau lomba di sekolah.

Competitiveness Dimension

C_05 Saya berusaha mencari solusi dari suatu kegagalan yang pernah saya alami.
C_06 Saya berusaha lebih baik dari pencapaian saya sebelumnya.
C_10 Saya belajar dari kegagalan sebelumnya untuk mendapatkan hasil yang lebih baik.
C_13 Setiap kegagalan yang saya alami tidak mematahkan semangat saya untuk terus mencoba.
C_15 Saya memiliki target untuk mendapat nilai yang lebih baik dari nilai rapor saya yang sebelumnya.
C_17 Saya meminta saran dari guru atau orang tua untuk memperbaiki pencapaian saya.
C_20 Saya berusaha lebih keras untuk mengejar target pencapaian saya.
C_24 Saya memanfaatkan waktu semaksimal mungkin untuk meningkatkan pencapaian saya.

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Training for Workers to Meet Current International Integrattion in Vietnam

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ABSTRACT

Vocational training for employees is one of the important tasks in order to create a human resource capable of adapting to the rapid changes of the labor market, meeting the requirements of international integration part of rapid and sustainable development of the country. In the process of international integration, technology training for workers in Vietnam has always been the concern of the Government, not only thriving in both size and quality to meet growth but also create sustainable jobs firmly, contributing to ensuring social security for employees in the new context. However, in the integration process and in the context of the industrial revolution 4.0, vocational training for Vietnamese workers is faced with challenges such as quality not meeting the requirements of socio-economic development. Therefore, it is necessary to have a system of solutions to contribute to vocational training institutions to improve the quality of training for workers in the direction of approaching regional and world levels.

Keywords: Vocational education, Occupational skills, International integration, Vietnam

INTRODUCTION

Referring to the role of intellectual work, the American futurist, Alvin Toffler emphasized: "Money is gone forever, power is lost; it is only human intellect that, when used, it is not only lost but also grows" (Alvin, 1992). Compared with other resources, human resources, with the leading factor being intelligence, have an outstanding advantage of not being depleted if they can be fostered, exploited and used properly; However, other resources, no matter how much, is only a limited factor and can only be effective when combined with human resources effectively.

In the modern world, when moving gradually to an economy based mainly on knowledge, vocational training for employees is one of the ways to create a workforce with skills, knowledge, and energy creative force for socio-economic development. In that context, many countries are recognizing that vocational training for good workers can make a major contribution to making the economy more competitive and developing skills as a companion factor for growth growth in Southeast Asia (Martin & Roman, 2013).In the process of international integration, the Government of Vietnam has determined: "Developing vocational education is one of the most important tasks contributing to improving the quality of human resources, adapting to rapid changes. rapid labor market, meeting the requirements of the Fourth Industrial Revolution, international integration and sustainable development of the country"; and "improving the quality of vocational education step by step to meet regional and international standards to meet the needs of domestic human resources and integrate with the regional and international labor market" are the only goals and views direction is indicated in (Party Committee, Labor, Invalids and Social Affairs, 2018). The issue of approaching the level of developed countries, approaching the level of ASEAN-4 countries (including 4 countries Singapore, Malaysia, Thailand and the Philippines) was also pointed out: "40 schools approached the level of ASEAN-4 countries" (Period up to 2025), "50 schools approaching the level of ASEAN-4 countries" (period to 2030) and "Vocational education Vietnam reaches advanced level in the ASEAN region "in the Resolution No. 617/NQ/BCSĐ

dated December 28, 2018 on continuing to innovate and improve the quality of vocational education until 2021 and orientations to 2030 (Party Committee, Labor, Invalids and Social Affairs, 2018).

The interest in vocational training for high-quality workers has positively contributed to economic restructuring, increased labor productivity, helping Vietnam escape the "middle income trap", each step to ensure the workers' lives. However, vocational training for employees is still limited, challenging and requires a more comprehensive and comprehensive solution system in the coming time. This is also the main content of this article. Literature Review In the book "Challenges and Opportunities for Vocational Skills Development in Asia: Supply, Demand and Unbalanced Changes", the Asian Development Bank makes policy recommendations on national strategies. Asian countries related to vocational education issues are as follows: Skills development as a key pillar in national planning; Reorientation and so on by the Asian education system; Reform of technical and vocational education and training with priority (ie selecting a number of occupations, in certain priority areas); Minimizing skill mismatches through international cooperation (Ra &Iu, 2015). At the same time, in economic and industrial transitions, emerging industries and professions require new skills, while many traditional fields shrink or disappear, leaving the necessary skills behind this is an outdated skill. Key questions faced by policy-makers as well as training institutions are: How to equip workers to transition to higher productivity and emerging industries, and how to ensure workers continue to improve their skills to further increase productivity. This shows the important role of retraining, or lifelong learning, and the role of vocational institutions in the current context (Ra &Liu, 2015).

In addition, the number of institutions providing training services has increased. In this case, the quality attention comes from those who want to be trained, from the entrepreneurs who want to invest in the training of their workers and from those who provide funding. As a result, quality certification schemes are increasingly being used as an accreditation measure in a highly competitive market. Therefore, there is a second path in the use of standards, in this case focusing on quality assurance (Fernando, 1995). This recommendation is also very important for vocational education institutions, it is an indispensable requirement for survival and development in the context of an increasingly demanding and highly demanding labor market amount. Cristina Martinez-Fernandez and Marcus Powell (2009) point out some issues related to labor skills training as follows: Employers in strategic economic sectors need to commit to developing scientific skills and high-level technology while skill formation in the workplace is regulated by government intervention to ensure minimum standards and long-term investments in strategic areas; The skill development of the workforce requires a conducive environment in which the provision of skills is balanced with the provision of opportunities to use these skills. Since then, the authors have given some recommendations for the ASEAN community: Continue to expand the system of Technical and Vocational Education and Training (TVET) in other countries. ASEAN members are least developed and in some middle-income economies upgrade quality and labor market relevance. Fostering collaboration between the business community and supplier education and training is an effective and feasible way to reduce mismatches between TVET results and job opportunities (Cristina & Marcus, 2009). The International Labor Organization (ILO) also recommends that ASEAN countries pay attention to some of the needs for the type of training (labor) that ASEAN businesses need most, especially management and leadership training (29 %), vocational and technical skills (17%), customer care services (15%). Next is marketing, IT ... and finally accounting (6%). Not only that, the ILO also pointed out that, in this period and in the near future, the ASEAN community will face skills mismatch in highly skilled professions. Statistics in 2014 show that 58.8% of ASEAN workers (179 million) are working in vulnerable jobs. Vulnerable employment rates in ASEAN are significantly higher when

analyzing gender differences, with the proportion of female workers being significantly higher than that of men.

In the research on vocational training (or vocational education) in Vietnam, there are also many publications on vocational training, which directly or indirectly refer to the access to international technical standards. Occupational skills, typically: Nguyen Thu Thuy (2018) pointed out 3 groups of breakthrough solutions to improve the quality and efficiency of vocational education: (i) Give full autonomy to TVET institutions; improve the governance capacity of vocational education institutions; (ii) Standardization of quality assurance conditions; (iii) Link vocational education with the labor market, sustainable jobs and social security. Research on the issue of vocational education associated with the market or the response to the labor market (Bui, 2019), or in other words, vocational training should be studied according to the market approach. Based on the law of supply - demand of the market (Nguyen, 2013)... These studies also give recommendations related to the policies of each vocational education institution to meet the needs of the labor market. Methods William Petty (1623 - 1687), who laid the foundations for the classical British political economy, said that labor is the father, land is the mother of all material possessions. And C. Marx wrote: "A machine not used in the process of working is a useless one ... Iron is rusty, wood is rotten ... Living labor has to grasp those things, transform it into life them" (Karl & Friedrich, 1995). In particular, in today's age, when all natural resources can be exploited increasingly exhaustedly, only human resources are inexhaustible resources and "knowledge is never taken away" (Alvin, 1992), the more important people and workers play a role. So, when talking about the role of employees, V.I. Lenin affirmed: "The leading production force of all humanity is workers, workers (Vladimir, 2005).

When referring to the role of education and training in general, vocational training for employees in particular in socio-economic development, UNESCO General Director, Mr. F. Mayor emphasized: "Education and training is the most fundamental human right, the key, the lever to a better world. The role of education and training is to develop all human potentials and create the prerequisites for realizing human rights, democracy, intellectual cooperation, equality and mutual respect... Therefore, it is necessary to re-concept more fully the role of education and training in human development, national development, and human development in the new age: education is not mere (or mainly) is the accumulation of knowledge which is more important to awaken the great creative potential of each person to make a useful contribution to the development of individuals and communities" (Pham, 2003). The UNDP Human Development Report (1900) put forth the impressive statement "the true wealth of every nation is its people. And the purpose of development is to create a favorable environment that allows people to enjoy long, healthy and creative lives" and the biggest difference in economic competition before and today is inwhere people are creating a competitive advantage. The decisive weapon of competition in the twenty-first century is the education and skills of workers. If human resource development is considered the decisive factor for the development of each country, vocational training for workers is the main method, has a decisive role in the training of qualified human resources. High quality is the basis of the human development strategy, social development, because its functions and objectives are to improve human understanding, both in the field of social sciences, self sciences, science and technology, technology; is the development of perfecting skills in applying scientific, technical and technological knowledge to production; is to improve the human spirit, consciousness, personality; is the training of morality, mentality, physical strength and all capacities and qualities of humans, especially the employee. Therefore, today, countries consider vocational training for workers as the factor holding the fundamental position and the driving force to decide socio-economic

development; investment in education and training is an investment for the future. Experience of Japan, a country with unfavorable natural conditions and poor resources, but knows how to promote the role of vocational training in socio-economic development, has a more equitable effect on opportunities to develop and benefit from socio-economic development for all, is a clear demonstration.

By acquiring, inheriting and developing theories of vocational training for employees together with the review of practical vocational training experiences in Vietnam and other countries around the world, as well as a clear awareness of the role of Vocational training in the process of international integration, Vietnam has identified: "Education and training together with science and technology are the top national policy, the foundation and driving force for industrialization and modernization (Communist Party of Vietnam, 2006); Because "education and training have the mission of improving people's knowledge, developing human resources, fostering talents, making an important contribution to the development of the country, building Vietnamese culture and people. Developing education and training together with science and technology development is the top national policy; investment in education and training is development investment" (Communist Party of Vietnam, 2011).

Results

The status of vocational training for employees to meet the requirements of international integration

In the process of international integration, investment in vocational training for workers in Vietnam has positively contributed to the supply of human resources for growth, increasing labor productivity, helping Vietnam escape the "revenue trap average entry". In the recent international integration process, vocational training for employees has undergone many successful innovations. Most vocational schools, especially in key economic and urban areas, have escaped the difficulty in enrollment to begin restructuring, improving the quality of training and increasing the scale. Vocational training is under the increasing impact of international integration and the 4.0 Industrial Revolution. Factors, such as the large and high-standard international market, the free movement of skilled labor in the region, the emergence of unprecedented new professions and occupations, the automation of many production segment, employment pressure on young people, low labor productivity compared to many countries in the region,... have been and will have a direct impact, requiring breakthrough solutions in vocational training, from reforming the legal framework and supporting policies of the State to reforming and international integration in training, improving the quality of vocational teachers and raising awareness of parents and students about apprenticeship roadmap and job opportunities for vocational human resources. On May 23rd 2014, The Prime Minister issued Decision No. 761 / QD-TTg approving the Project to develop high quality vocational schools until 2020 (Project 761). Accordingly, 45 public schools have been selected to prioritize concentrated and synchronous investment according to the criteria of high-quality schools, capable of training a number of occupations that are advanced in ASEAN countries or internationally recognition. In the period 2014 - 2019, high-quality vocational training has achieved a number of outstanding results: - Regarding the development of professional skills, in the 2007-2018 period, vocational training for workers with high occupational skills has a very fast growth rate, an average of 11.67% / year in the college group and 8,54% / year for the group of universities and above. Meanwhile, the groups without occupational skills and low and middle-level occupational skills tended to decrease with an average annual rate of -2.27%; -3.51%; -2.40%. Regarding the structure and vocational training for workers with occupational skills out of the total workforce in 2018, the number with high-level occupational skills (colleges and universities) accounts

for 67.87% (university 39,81%, college 28.06%). Meanwhile, the number with low-level occupational skills (elementary) accounts for only 11.46% and with intermediate vocational skills accounts for 20.66% (Nguyen, 2020).

- The number of enrollment increases every year. In 2017, the enrollment size increased by nearly two times compared to 2015. From 2018, the enrollment size increased on average from 10% to 15%. Particularly, high-quality training programs always have enrollment results that exceed the assigned quota. In 2018, the enrollment result was 176,741 students (an increase of 10% compared to 2017 and accounting for 8% of the total enrollment in the country). Most graduates have the right professional jobs before and shortly after graduation. - The State has selected 251 professions and trades in 49 key professions and trades at all levels of 45 schools to support investment, of which 154 occupations in 27 international professions and 60 occupations at 18 occupations and occupations at ASEAN regional level and 37 turns in 28 sectors and occupations at national level. The schools have received the transfer of training for 34 international key occupations (12 occupations from Australia, 22 occupations from Germany). The current training scale of the international transfer system is 2,000 students. Graduates will be awarded with Australian or German associate degrees; 682 lecturers were trained synchronously at home and abroad; 45 schools have been assessed by international partners to meet the standards for training organization (Le, 2020). - The schools meet the quality accreditation standards in the country. In which, 21 schools operate the UK quality management process, 8 international accreditation pilot schools have basically met the standards assessed by British and German experts. Most corporations and large enterprises have been interested in and directly participating in vocational training, such as Vingroup, Sungroup, FPT, Samsung, MuongThanh, Thaco, FLC... Investment projects with human needs. High quality has been basically met. Cooperation between enterprises and schools has been strengthened in the direction of increasing in-company training, custom training... Most of the high-quality training programs have over 30 in-company training periods %, practice time is over 50% of the program.

- The schools invested in providing high quality vocational training have the mission of leading, spreading and impacting the whole system while the system needs to focus on developing the quantity and scale of the training. This becomes a big challenge in the context and conditions of Vietnam. According to the World Economic Forum's 2018 Global Competitiveness Report, Vietnam ranked 77/140 in the economy in terms of overall competitiveness and 97 out of 140 on skill pillars (of which, on indicators of the company's investment in staff training and development ranked 81/140, vocational training quality ranked 115/140, university student skills ranked 128/140) (Le, 2020). With the care to invest in the development of vocational training for workers in the integration process, it has contributed to improving the quality of vocational training in Vietnam, increasing 13 ranks and ranked 102/141 in the country. There has been a positive change in vocational training with 85% of the people completing the job. More and more effective training models appear. In many vocational schools, 100% of students after graduation have jobs with high income... (Dan SinhNewspaper, 2019). The results achieved in vocational training for employees in the innovation process have contributed an active part in Vietnam's socio-economic development in the integration process, especially in the economic field. The Economist (UK) magazine in August 2020 ranked Vietnam in the top 16 most successful emerging economies in the world. According to World Bank (WB) data in 2019, with an average economic growth of 6.8% / year in the 2016 - 2019 period, Vietnam is in the top 10 of the highest growing countries. Although heavily affected by the COVID-19 epidemic, while most economies fell into recession, with the synchronous and drastic direction of "dual goals", Vietnam has maintained growth positive growth is

quite good. According to the World Bank, Vietnam's GDP in 2020 is estimated at 2.8%, belonging to the group of countries with high economic growth rates in the region and in the world (The World Bank, 2020). From being one of the poorest countries in the world, Vietnam has grown rapidly to become a low-middle-income country, with GDP per capita reaching about $ 2,800 in 2019, more than 45 million people out of poverty; is one of the fastest growing and most dynamic economies in the region. In terms of gross domestic product, Vietnam is the 46th economy in the world. According to the International Monetary Fund (IMF), Vietnam's GDP is now estimated at more than 340 billion USD, surpassing Singapore and Malaysia, ranking fourth in the region (Vietnam Business Insider, 2020).

The Global Competitiveness Report published by the World Economic Forum, out of 140 countries ranked in 2018, Vietnam is the country with the highest level of competition in the world (transaction economics, 2020). Vietnam has become one of the most open economies in the world (accounting for about 200% of GDP). In particular, with the participation in new generation free trade agreements (FTAs), it will have a direct impact on the Vietnamese economy, helping Vietnam become a competitive and innovative economy create stronger. Some foreign experts said that Vietnam has the potential to become one of the most prominent economies in Asia, despite the challenges and crisis from the epidemic of acute respiratory infections COVID-19. According to Japanese economist Hamada Kazuyuki, Vietnam has the potential to become a great power in the future (Hamada, 2020). Although there are important reforms in vocational training and education for employees, there are still many shortcomings: Firstly, the vocational training and education institutions have not yet ensured that the vocational training and education institutions have strongly shifted towards the development of occupational skills for employees; the operation of vocational training and education institutions does not have a close connection between career orientation and development of professional skills and employment with enterprises. Therefore, employees lack and weaken both the necessary "hard skills" and "soft skills", especially foreign languages, computer skills, teamwork skills, in a multicultural environment...

Second, the institutions for the development of occupational skills have been formed but have not been completed yet and keep pace with the development and change of practice, the management capacity for the development of professional skills is still inadequate. The implementation of managerial and professional skills development functions of state management agencies, such as advising, proposing policies and laws, organizing the development and appraisal of national occupational skill standards,... is limited, has not yet met the requirements of developing a professional and modern system of professional skills; The participation of other subjects, especially enterprises is still under form. Vietnam's national vocational skill standards are slowly being promulgated; The organization of assessment and certification of occupational skills has not been widely deployed, only meeting a very small part of requirements of the list of occupations and requirements of workers, many key occupations have not yet targeted national vocational skill standards. The promulgated national occupational skill standards are still low compared with regional and international occupational skill standards; the development of occupational skills of employees has not met the needs of users and enterprises, especially when enterprises apply new science and technology from the achievements of the Industrial Revolution 4.0. The national vocational skill assessment and certification institutions have not developed widely, their capacity is still limited (in terms of human resources for assessment, banking of exam questions, application of information technology...), yet meeting the needs of the increasingly demanding reality. According to a recent study by the Institute of Social Labor Science, currently labor productivity in Vietnam and corporate governance skills are very low and currently 2/3 of the employees

lack labor skills and skills art; 55% of enterprises said that it is very difficult to find a source of high quality labor. While over 60% of FDI enterprises are planning to expand their investment in Vietnam, it is very difficult to attract investment without improving the quality of their labor force (Le, 2019).

Third, the labor market institution, although always being supplemented and completed, has not kept up with the constantly changing and complicated practical situation. In which, the liberation of production and labor power is not ensured; the labor market is not evenly developed and still fragmented; Young people still face many difficulties, even with occupational skills, in freedom of movement by occupation, education level, geographic area, formal / informal sector, by job position, ... due to lack of labor supply and demand forecasts, limited labor market information, employment service provision, and administrative barriers, especially household registration, residence, access to basic social services... Fourth, the labor market service system (analysis, forecasts, labor market information, job services...) supports skilled workers to move in the labor market underdeveloped, especially job exchanges; application of information technology is weak and service quality is not high. Limitations in vocational training for workers inevitably lead to per capita income in Vietnam today still low middle compared to other countries in the region, only higher than other countries like TimorLeste, Cambodia and Myanmar. Compared with other ASEAN-6 countries, this income level is quite far, only 4.5% of Singapore, 8.4% of Brunei, 23% of Malaysia, 34.2% of Thailand, 65% of Indonesia, 79.2% of the Philippines (VOV, 2020). In the context of the Industrial Revolution 4.0, Vietnam is showing signs of "slowing down" compared to other countries in the region. Vietnam's competitiveness is still low compared to many ASEAN countries. Many exported products of Vietnam have low domestic added value, mainly performing the assembly function. The participation of domestic firms in major global value chains (GVCs) is limited, and exports are mainly driven by the foreign direct investment (FDI) sector accounting for more than 70% of the total export turnover (Nguyen, 2020). The risk of falling into the middle income trap of Vietnam still exists if Vietnam does not promptly renew its vocational training and increase its growth in the coming time.

Orientation and training solutions for employees to meet integration requirements in the coming period

The State gives priority to investment in high-quality and key schools and occupations; schools are highly autonomous and actively associated with businesses in training. Quality accreditation and standardization work are determined to be implemented synchronously, closely following international standards to quickly contribute to improving the quality of training, meeting international integration requirements. Enterprises and private investors are encouraged to participate in high-quality vocational training to meet the needs of enterprises and to supply high-quality human resources for domestic and foreign labor markets. From the above point of view, the basic orientations for vocational training in the coming time are: Firstly, vocational training reform should focus on both the training size, structure and quality; increased autonomy and accountability for vocational training institutions; inherit and bring into play the achieved achievements, selectively absorb international experiences suitable to Vietnam's socio-economic conditions; standardize vocational training towards international integration; creating a breakthrough in the quality of occupational human resources. Second, to develop an open, diversified and flexible vocational training system with many training modes and levels to meet the needs of both employees and employers; focusing on lifelong occupational skills to improve labor productivity; closely linking vocational training with the needs of the labor market, taking the acceptance of the labor market as a measure of the effectiveness of vocational training. Third, diversify investment resources for vocational training, in which the State plays a key role. The State gives priority to focusing on

synchronous investment to form high-quality schools; key national industries and occupations, the trades and occupations approaching the regional and international advanced level; to attach importance to developing occupational skills for specific subjects and professions.

Fourth, vocational training reform, creating job opportunities, increasing income and productivity of occupational human resources is a common task of the whole political system and needs to join hands to take on the responsibilities of the authorities state management, training institutions, businesses, press agencies, the media, parents, students and workers. From the above points of view and orientations, some solutions are proposed to innovate and develop vocational training for employees in the coming time:

Firstly, renewing thinking and raising awareness of the development of professional skills on the basis of young human resources as the center, to promote all human resources for sustainable growth and development of the country. From there, highlighting the role and responsibility of the State, employers, training institutions, vocational education institutions, enterprises, social partners and youth themselves for skill development my job. Second, improve the institution and strongly develop the national vocational skill assessment and certification system in the direction of specialization, professionalism and modernization: Set up a forecasting organization and strengthen the forecasting work. demand for career skills of young people; capacity building and speeding up the addition of the list of jobs requiring a national vocational skill certificate; approach international standards and strengthen international cooperation in vocational training. Formulate and promulgate quality assurance conditions in vocational training towards approaching regional standards of ASEAN4 and developed countries in the G20 group; building a comprehensive, complete and reliable database on vocational training in order to well serve research and statistics related to the quality of vocational training and human resources; to encourage and support pilot vocational training institutions in implementing training programs transferred from abroad to draw experience for mass deployment, creating international-standard human resources for the domestic market and internationally.

Third, to invest in high-quality vocational training institutions and key industries and occupations. In particular, to attach importance to reviewing and arranging public vocational training institutions in the direction of improving operational efficiency and increasing the proportion of training programs according to international standards. Strengthen the forecasting, planning and orientation of vocational training institutions, focusing on industries and occupations with great demand in the coming time, such as information technology, tourism and hotel and agricultural management high-tech industry, healthcare and healthcare...; encourage vocational training institutions to design training programs capable of attracting good and good learners to have quality human resources, contributing to reducing waste of social resources when many learners are good and good college career but must work in contravention of expertise, forte, profession or profession. Fourth, continue to improve institutions and develop a labor market capable of connecting labor supply - demand to create a level playing field, healthy competition for workers in the direction of continuing to fully release their labor. moving, removing administrative barriers for workers to freely move to space and careers; to develop the labor market widely throughout the country, especially in underdeveloped regions and ethnic minority areas; to step by step develop high-quality human resources market; strongly develop the labor market infrastructure, especially the labor supply-demand forecasting system and labor market information, provide timely and effective support for young people with free skills shifts in the labor market for sustainable employment opportunities. Fifth, link vocational training with the labor market, sustainable

jobs and social security. To promote cooperation between vocational training institutions and job placement centers, job exchanges and job fairs to assist learners in finding jobs after graduation; attach importance to linking training with sending workers abroad; enhance communication, raise people's awareness of vocational training opportunities and roadmap, job opportunities and career roadmap for vocational human resources, contribute to promotion and enrollment for vocational training institutions; continuously update new vocational skills requirements and new vocational recruitment trends, build a portfolio of vocational skills for both present and future as a basis for design, update vocational training programs in accordance with practice; increase information on vocational training programs targeting vulnerable groups, such as ethnic minorities, the poor, out-of-school adolescents, people with disabilities... to create access opportunities apprenticeship and jobs for all subjects in society, so that no one will be left behind in the development process.

Sixthly, to expand international cooperation on career skill development for young people through policies to encourage foreign investment in vocational training and education institutions for youth; cooperation in the development of the national occupational skill assessment and certification system; support the computerization of management and administration of the national vocational skill assessment and certification system...

CONCLUSION

Vocational training for workers in the international integration process is an inevitable trend in Vietnam today. That not only creates a premise for socio-economic development in general, but also continues to promote international integration in the context of the industrial revolution 4.0. In order to accelerate the current international integration process, vocational training institutions need to aim to improve the qualifications, skills and skills of workers to meet regional and international standards, play a decisive role. Therefore, vocational training institutions need to renew their thinking, vigorously renew their goals and methods of implementation, in order to improve their own competitiveness as well as that of the Vietnamese labor market. Policies to support vocational education institutions in Vietnam have shown effectiveness and need to be done more and more quickly to help vocational education institutions to provide goods with higher quality and economic efficiency, meeting the requirements of the fourth industrial revolution which is taking place today.

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E-Learning in Higher Education and Covid-19 Outbreak: Challenges and Opportunities

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ABSTRACT

Driven by the current circumstances of the COVID-19 outbreak, this study investigates the rise of online teaching in higher education (HE). It collects feedback from the teaching professionals regarding their opinion on E-learning experience to answer the following question: in the distinctive rise of e-learning during the covid-19 outbreak, what are the main challenges and opportunities in conducting your online teaching? This study has numerous implications related to E-learning in higher education. It provides recommendations to governments and university policy-makers in designing the policies and programs on E-learning. Furthermore, the university's top management (i.e. president, VP, dean of college and HOD) need to concentrate on the importance of enhancing education quality in their institutions during this exceptional time.

Keywords: E-Learning, Higher Education, COVID 19, Education Quality

INTRODUCTION

The global spread of COVID-19 has resulted in schools and HE institutions closure worldwide; over 1.2 billion students are out of the classroom (UNESCO report 2020). As a result, education has changed dramatically, with the distinctive rise of e-learning, whereby teaching is undertaken remotely and on digital platforms. Research suggests that online learning has been shown to increase retention of information, and take less time, meaning the changes coronavirus have caused might be here to stay. Higher education is the last stage of formal education, and it is the sensitive sector in the existing society [1], [2]. To support it with qualified human resources capable of developing, making change, and achieving development therefore, the education sector must benefit from technological development.

In this critical time, research progressions must focus on inventing new approaches to accommodate the present-day changes in online learning, simplifying the process of digital transformation customizing online learning models. Also, develop an online learning model that will reduce the workload on the instructors. Online learning took a variance shape such as online education, extended learning, digital education, internet-based education, online learning, distance education, technology-based training, web-based training and computer-based training [3]. This effort supports curricula, improves conditions, and expands opportunities to benefit the largest possible group of people. Students are also confronting and facing the various negatives that education in general and education suffer especially higher. It is among the essential modern policies and programs that have been adopted to move forward with higher education, addressing various obstacles and negatives, and supporting its programs and plans: E-learning [4]. This new type of education is based primarily on the latest findings. Information

and communication technology have provided many education levels, significantly higher education among the capabilities and features drive to take significant reforms and development steps. E-learning is of utmost importance, especially nowadays during the coronavirus, as a new type of modern education based on its support with modern technologies, which coincides with the attempts Ongoing in universities to study the possibility of implementing e-learning programs. Specialists in information technology and education in the Arab world, as it is a feature of society information, which today is an indication of the level of sophistication and progress of countries.

Unlimited specialized scholars agree that the information revolution that has been translated into what is called the internet is the most important technological achievement that has been achieved. Technology eliminates distances and shortens time and makes the world more like a small electronic screen in mixing technology, media, information, culture and technology. Also, communication became electronic and exchanged news and information between computer networks. Tangible facts allowed quick access to science and knowledge centers and libraries and to see what moment by moment [5] is new. However, any educational system's success depends mainly on its adherence to internationally agreed quality standards. E-learning is a non-traditional educational system that enables the learner to gain scientific achievement and benefit from the educational process in all its aspects without moving to the site of study. He has an education without the need to drop out of work or abandon social attachments. E-learning is a method of education using modern communication mechanisms such as computers, networks, multimedia, and Internet portals to deliver information to learners in the fastest time and at the lowest cost in a manner that enables the educational process to be managed, controlled, and measured and evaluated by the learners' tool. With the tremendous developments taking place today, many of the concepts that govern human beings have changed. Perhaps the idea of education is the most influenced concept by the development of information and communication technology, as a large group of terms for e-learning emerged including Web CT system, Blackboard e-learning management system, Academic Suite, MOODLE e-learning management system, DOKEOS electronic learning management system and ATUTOR electronic learning management system. Therefore, this study aims to investigate the rise of online teaching and collect feedback from the professionals of education regarding their opinion from their experience of learning to answer the following question: in the distinctive rise of e-learning in the during covid-19 outbreak, what are the challenges and opportunities?

LITERATURE REVIEW

E- Learning is well-knowns just as the soonest application [6]. In today the E-learning is getting mainstream around the world. E-learning is depicted as the conveyance of learning through innovation and the web [7], [8], [9]. Practically all the colleges and universities have built up the E-learning entrance of their understudies and resources [10]. While surveying the presumptions encompassing the advanced change of, HE foundations, [3] gave five normal suppositions that are viewed as a greater number of obstructions to computerized change of HE foundations as against commitments to its acknowledgment and these suspicions are identified with (a) change, (b) pace, (c) innovation, (d) skills and (e) financing. Digitalization in HE foundations ought not to be alluded to as e-learning since internet learning is just one of the few highlights of computerized change of HE establishments. Web based learning is the instructive use of innovative gadgets, apparatuses and the web, [11] added that the diligent expansion in mechanical advancement and web openness has expanded the inspiration for internet learning since the start of the thousand years, however [12] presumed that the instructional accomplishment of web based learning is easily proven wrong since it makes nonattendance of face relationship among students, students and teachers. [13] separated enough arranged web based taking in encounters from courses

introduced online as reaction to emergency. These specialists went further to allude to online instruction during this pandemic as "crisis far off educating" in light of the fact that the last is conversely with quality or successful web based learning. Effective online education comprises of web based educating and getting the hang of, boosting of a few exploration works, standards, models, hypotheses, morals and examination of benchmark fixations on quality online course configuration, instructing and learning [13], [14], since it has been affirmed that viable web based learning is a result of mindful plan and arranging of guidance with the utilization of coordinated model for planning and improvement of guidance [15]. The nonappearance of the careful plan and improvement measure [15], in the relocation cycle brought forth the dismissal of the contemporary online instruction experience during this pandemic as powerful online training yet rather as crisis far off educating [14], [13], [16].

METHODOLOGY

Guided by the study's unique purpose, a qualitative methodology was found to be more appropriate and the intention was to undertake a series of semi-structured interviews with several experts to ascertain the overall impact of the covid-19 outbreak on online teaching [17]. Then, collect their feedback regarding the opportunities and challenges of e- learning. It was considered necessary that scholars should meet specific requirements of having comprehensive knowledge. One question formulated by the current research was directed to allow the specialists to answer freely based on their practical experience in e-learning. Using social media, the research question has been passed to professors and their feedback collected, respectively. Data collection process implemented within one week from 15-20 December 2020. Discussions and Results Through the feedback gathered from specialists and professionals of higher education, the study results indicated that there are a set of benefits that represent the positive side and opportunities provided by e-learning for the educational environment. The results also indicated a set of challenges that limit the provision of the ideal form of education in order to achieve the desired goals. Below we will list the positive opportunities received from specialists and the challenges that must be faced to improve the performance of e-learning.

Opportunities Comparing e-learning methods with traditional education methods, the fundamental advantage was overcoming space and time restrictions in the educational process. Also, expanding opportunities for admission to higher education and overcoming the obstacles of limited places and enabling higher education institutions to achieve the optimal distribution of their limited resources. Considering the individual differences between the learners and allowing them to complete the education processes inappropriate environments for them and provide according to their own abilities. They are providing the opportunity for learners to interact instantly electronically with each other on the one hand and between them and the teacher on the other side, from e-mail means, discussion groups, dialogue rooms and the like. They are spreading a culture of self-learning and training in a society, which enables the improvement and development of learners and trainees' capabilities at the lowest cost and with the least effort. Raising students ' sense of equality in the distribution of opportunities in the educational process, breaking the barrier of fear and anxiety they have, and enabling students to express their ideas and search for facts and information in more effective means than what is used in traditional classrooms. Ease of access to the teacher electronically even outside the official working hours. Reducing the administrative burdens of academic curricula through electronic means and tools to deliver information, duties and assignments to learners and evaluate their performance. Using a variety of different methods is more accurate and fair in assessing learners' performance. Enabling the student to receive the scientific material that suits his capabilities through the visual, audio, read, and so on. Providing a huge and renewable balance of scientific content, tests and teaching history for each course

that can be developed, improved and increased the effectiveness of its teaching methods. Not relying on actual attendance, the student must adhere to a specific, restricted and binding schedule in group work concerning traditional education. Still, now this is no longer necessary because modern technology has provided ways of communication without the need to be present in a specific place and time, so coordination has become not that important and causes inconvenience. Reducing the administrative burden for the teacher.

In some cases and universities, the vast majority of students in e-learning are older and have jobs to start and sponsor families. The diversity of the reasons for students' enrolment in e-learning programs; some may be interested in obtaining certificates, and others are practical to acquire new knowledge or advanced skills. Students are considered isolated in the e-learning system, and some basic factors in education are absent from them, such as motivation stemming from communication and interaction with others. Students in e-learning programs, especially beginners, face some difficulties in determining the most appropriate programs available to them, and how to obtain the support of their fellow students. Depending on the internet and technology in teaching, it enables the provision of appropriate written, audio, or visual communication channels, such as the regular e-mail to report problems or provide information about lessons and records. It is advisable to form discussion groups so that the learner and trainee can communicate with each other and exchange information on need. They ask the learner to do homework and send it electronically and provide short solutions to guide and assist in the resolution. The material can also be viewed and covered as a web page or downloadable file in various formats.

Establishing an electronic list of possible and complete references and sources for the lesson and providing a link with other pages covering information on the topic and similar seminars that are also available on the scientific web, with www or with university libraries. Scholastic. The use of the Internet in education has led to a unique and rapid development in educational science and affects the way the teacher and the learner perform and accomplishes them in the classroom. Various terms have arisen at the international level to deal with the Internet and information networks, including a world without papers, Universities without walls, Education institutions for the future, Electronic schools and universities, Virtual Learning Environments, Virtual universities, Virtual classes are classes similar to traditional courses in terms of existence and Digital Curriculum [18]. The teacher and students, but it is on the global network, where it is not restricted by time or place, and through which virtual learning environments are used to gather by networks to participate in collaborative learning situations. Direct participation of systems, programs and applications (between the teacher and students or between students) Application Sharing, File transfer and direct exchange between the teacher and his students. Following up with the teacher and communicating with each student separately or in a group of students simultaneously. The electronic data is in line with the nature of the era and the technological and informational development. The electronic learning environment: an educational system consisting of a set of interrelated and complementary elements which are sub-environments made up of various modern technologies such as computers and communication networks. And different software based on managing educational content and delivering it to learners. Educational content: It is the basis of the educational process represented in the academic program or the scientific material that is transferred to the learner through the electronic environment for education. This content is presented according to stages and standards. It takes into account the learner's ability to comprehend and understand through a set of tests [19].

In the field of e-learning, this matter takes special importance to distance the learner from the teacher. In order to achieve quality in e-learning, three basic conditions must be met: Ensuring real growth in the personality and behaviour of the learner. Adaptation with the needs of society in the existing circumstances. In order to achieve these conditions or standards in the quality of e-learning, a set of methods must be followed, and the most important of which are: Providing basic requirements for students enrolled in this type of education to ensure appropriate educational inputs that possess psychological, mental and physical capabilities. Providing the conditions for the quality of education in the educational material, the educational media, the teacher, and all software used in these two systems. They are implementing educational programs in the e-learning system according to careful monitoring, enabling us to implement programs according to their goals and monitor them from cases of decline or deviation from their real goals. Evaluating educational programs used in the e-learning system in light of cultural and social developments, and extracting feedback in order to introduce reforms or development in an up-to-date and continuous manner. Developing the performance of faculty members, as well as the conditions for student admission, in order to ensure continued strong input from students and teachers. Continuously reviewing the administrative and technical system in the e-learning system. Subjecting the e-learning system to evaluation procedures in order to diagnose strengths and weaknesses. Challenges One of the most challenging challenges facing e-learning in educational institutions' limited capacity to establish large networks and provide large numbers of devices and equipment. Add a select update and that information and communication technologies are witnessing multiple developments and transformations, rapidly and continuously this makes the various technologies challenging to acquire. As for software, it was a lack of E-learning applications in the Arabic language provide a significant challenge in addition to their multiplicity and the need for similarity among them is an obstacle to choosing the appropriate software, hence the concerned ministries, especially ministries education and the Ministry of Communication and Information Technology to coordinate with each other to produce local software taking into account the various peculiarities of education and the learner [20]. To ensure a smooth transition to an e-learning system, laws must be adapted and the instructions in a way that ensures the dynamism of the educational system, in line with the fast-paced modern developments. Laws must provide the necessary cover to protect freedom of thought and the collection of knowledge, and most importantly, generating them, which requires amending some laws that stand in the way of electronic dealing [21]. E-learning is a broad and complex concept that affects many aspects of life and it requires the collaboration of different elements to achieve the cognitive goals and not, as some think, it is just the process of transferring content or information from the paper medium to the electron medium. This structure includes the Network Educational National (that link) the universities together, and the structure on which the network will be based, which determines the electronic linkage devices (DTE & DCE), the computers to be used for communication and browsing, and then the software that it will provide educational applications that will facilitate the handling of educational content Broadband Network, Interactive Learning. The difficulties to develop an educational suitable e-learning curriculum in universities. Virtual classes need special curriculum as a system consists of: content, method, objectives, activities, and educational aids. In order for the selection to be successful, the teaching method must meet and match the curriculum content. And its activities and teaching method, and the achievement of educational goals, in order to help achieve easy learning. This type of computer program depends on the learner's practice of an educational game until it. The goal for which this game is designed, through which the learner acquires skills and concepts. With or without verbal communication in the delivery of a message, idea or elements of the subject matter to the student and help to Communicating information to their minds in a structured, engaging, and in a way that helps the effectiveness of a process. Some students' economic capacity will impose restrictions on the ability to

provide the necessary equipment to attend the virtual lectures, in addition to the cost of Internet connection and the requirements of ancillary devices such as audio and camera devices. The quick and sudden digital transformation process of universities increase. The workload has accumulated greatly on students and teachers due to the nature of the educational material that needs to keep pace with the educational platforms and the soft material suitable for distance education. Therefore, raising the educational material and dumping it on students and asking the student to do study assignments and uploading them to the website, is an added burden for all and takes a long time due to the complexity of technology. The compatibility of online learning with social and human sciences in general is compatible with remote study, but this does not correspond to scientific specializations such as engineering, chemistry, physics and the like, as there is a close correlation between teaching these sciences and the need for laboratories to conduct the necessary scientific experiments [22].

This type of educational computer program is based on the principle of providing students with an opportunity to learn through situations that are similar to the real concerns that confront them, and he practices them in real life as much. The simulation software provides the learner with models, activities, and practical exercises close to reality. Examples are these educational programs: Training in piloting aircraft and aviation and conducting laboratory experiments on chemicals and nuclear fission, which helps the student with the trainee to become familiar with the difference [23]. It is that software that aims to design smart systems using computer technologies to mimic the way humans think in processing information and give the same characteristics that we know with intelligence in human behaviour; artificial intelligence software works on the principle of emulation configurations with which it is possible to describe objects, events and processes using their qualitative properties and their relationship. The artificial intelligence software is represented in the following areas: expert systems, machine programming. Computers for speech, robots ... etc. It was one of the major problems facing construction. This software has a high storage capacity in addition to its high complexity. Among the requirements that motivate and encourage students to e-learning, education continues the electronic system suffers from a lack of clarity in the systems, methods and methods in which education is conducted in a manner it is also clear that the failure to decide on the issue of incentives for the educational environment is one of the obstacles that hinder the effectiveness of e-learning.

CONCLUSION AND IMPLICATIONS

This study focuses on. E-learning portal services and the aim was to investigate the rise of online teaching and collect feedback from the teaching professionals regarding their opinion from their experience of E-learning systems. The study has numerous implications related to E-learning in higher education. It provides recommendations to government and university policy-makers in designing the policies and programs on E-learning. At the same time, the university top management/dean of faculty and HOD of the department need to concentrate on the importance of enhancing university quality education. In the future, most of the universities will be offering online courses to the students. If the pandemic remains longer, it might change education from physical attendance to online. Based on that, the quality of the E-learning system and quality of information will impact user satisfaction and system use that will lead toward the E-learning portals. Obviously, education will be borderless within a few years and it will decrease the education cost. This study recommends some of the suggestion to higher education institution such as accessibility of the E-learning portal 24/7, error-free information, quality of information, content quality, the robustness of the server, training module materials related to E-learning portal use for new users, updated information, well-organized data, user-friendly design of the portal, and time to time feedback from the user will increase the durability and acceptability of the E-learning portal.

Establishing rules for university education e-learning practices in the institution that intends to offer study programs through distance education by developing and managing these programs in line with the recognized foundations of university education, taking into account the specifics and requirements of this unconventional pattern. • The programs and degrees offered should be about the distance education system is one of the strategic components to achieve the educational institution's goals. The distance learning systems should also be designed and developed to contribute to activating this strategy. Before embarking on offering distance education programs, the educational institution must prepare and experiment with teaching and management systems for the programs it intends to offer and provide all its requirements to maintain the required level of quality and adherence to standards. The educational institution considers the laws in force in the country in which distance education programs are offered. The institution provides the required budget for the distance education programs it intends to offer and for the entire period that students will spend in studying these programs to maintain the quality standards set by the institution. The institution is keen to ensure that distance education programs and their components are characterized by an explicit agreement between the objectives of education on the one hand and the strategies of distance teaching and the content of the scientific material and the patterns and standards of evaluation on the other hand. Institutions give clear attention to developing and supporting self-education and enabling learners to control their educational growth. Therefore, institutions must set realistic goals and practical ways to achieve them and verify that the goals are achieved. The institution provides complete and clear information to students studying remotely in the following areas: the nature of the distance education program and its requirements, the relationship between achievement, brevity and evaluation, academic progress and the collection of accredited hours, characteristics of the distance education system and how to deal with it. It should also provide this information to help students make decisions about their studies and evaluate their academic path according to performance standards. The institution demonstrates evidence that the final evaluation methods used for distance education programs are appropriate for the type of study, the study conditions in this style, the nature of evaluation, correction, and the announcement of grades are conducted in a reliable and orderly manner, and that these procedures adhere to academic standards. Institutions prove that the final evaluation of the programs or their components appropriately measures students 'achievement of the program's competencies. The institution uses the formative assessment as part of the distance education program design process.

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Note