

THE PREPARATION OF THE READINESS IN THE EDUCATION AND THE REQUIREMENT OF LABORS OF THE NEW MODERN AUTOMOTIVE INDUSTRY IN THE EASTERN ECONOMIC CORRIDOR (EEC)

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ABSTRACT

This study has the objective for studying about the development of the studied curriculum in the new modern automotive industry in the Eastern Economic Corridor (EEC) and for studying about the readiness level of the labor market of the new modern automotive industry in the Eastern Economic Corridor (EEC). There are 17 persons of the sample such as; 13 persons of the educational institute group which is a coordination centre in producing and developing vocational manpower of the Eastern Economic Corridor (EEC) and 4 persons of the business place group which is related to the automotive industry by using the analyzed method of the content. Using tools in gathering the information is interviewing forms of the educational institute group and the business place group. The studied result is found that;

1. The educational institute group which is a coordination center in producing and developing vocational manpower of Eastern Economic Corridor (EEC) has done MOU together with the business place group which is related to automotive industry by using the bilateralism that is the study management and the development of the mutual curriculum between vocational teachers with the business place.
2. Most of vocational institutes would like to open the additional new modern automotive program by the aforementioned branch will be opened according to the university plan that is in the year of 2019 and 2020.
3. Students aren't enough for the requirement of labors in the new modern automotive industry.
4. The business place group which is related to the automotive industry will have the requirement of many labors in the technique on the level of the vocational certificate, the high vocational certificate and in the engineering for supporting the project of the Eastern Economic Corridor (EEC).

Keyword: The development of the curriculum, the level of the readiness of the labor market, the bilateralism, the Eastern Economic Corridor (EEC), the new modern automotive industry

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Introduction

The background and the importance of the problem

In the past time, Thailand was under the leading of His Excellency General Prem Tinsulanonda that had determined to let other agencies to join together to propel the major investment in the Eastern Seaboard which would have set to be, “The national agenda”, that everyone would join together to develop to build the first deep commercial seaport of the country in the Laem Chabang area and had used the aforementioned Eastern Seaboard to be the production base of other important industries for dispersing the growth in the eastern region of Thailand. The aforementioned project would give the effect to create the development in the automotive industry and the petrochemical industry for propelling the economy and attracting foreign investors to enter to invest in Thailand continuously (Rayong Office, 2017).

From the aforementioned Eastern Seaboard project, this will give the current effect to Thailand under the leading of General Prayut Chan-o-cha to present the national strategic frame for the time period of 20 years (2017-2036) for developing Thailand to create the security, the wealth, the permanence more and changing Thailand to be the developed country which will use the development according to the philosophy of the sufficiency economy that is the aforementioned national strategic frame for the time period of 20 years (2017 - 2036) will have the importance on the development of industries of Thailand very much. The most important guiding frame for the development of industries will be the guiding frame in; (Strategic Wisdom and Research, 2018, p.52-55)

1. The development in the economic capacity that will contribute the commerce, the investment, the development to be the national commerce.

2. The development in production and service sectors that will contribute the production base to have the strength, the permanence and contribute small farmers to be the sustainable agriculture that will be friendly with the environment.

3. The development of entrepreneurs and the economic community which will develop the skill of entrepreneurs, lift the production level of the labor productivity and develop SMEs internationally.

4. The development of the special economic zone and the city which is the development of the special economic boundary zone and the development of the system of the city of the growing center.

5. The investment to develop the infrastructure for both in the transportation, the security and the energy, the information technology system and the research and the development.

6. The connection with the region and the world economy which will create the partnership in the development with many countries and will contribute to let Thailand to be the base of operating businesses etc.

For presenting the national strategic frame for the time period of 20 years (2017 - 2036) of the government, this will support to create the developing project of the Eastern Economic Corridor or EEC for contributing the new modern innovation and lifting the area level, especially for the Eastern Economic Corridor (EEC) and this will be the important economic zone of Asia which this has the development of 10 industrial targets (Strategy and information group for provincial development, 2017, p.11) such as;

1. The new modern automotive industry.

2. The smart electronics industry.

3. The tourist industry which are the group of having good revenues and the health tourism.

4. The agriculture and the biotechnology.

5. The food processing industry.

6. The robot industry for manufacturing.

7. The aeronautics and logistics industry.

8. The biofuel and biological chemical industry.

9. The digital industry.

10. The medical hub.

Provinces in the eastern region that are under the development such as; Chachoengsao, Chonburi and Rayong For the project of the development of the Eastern Economic Corridor (EEC), this will give the effect to let to have many investors for both in Thailand and overseas countries to enter to invest in that area. Especially for the automotive industry, which is one in the main industry of the developing project of the Eastern Seaboard since in the past time. Currently, This will make investors in the automotive industry sector which are famous worldwide car assembly companies from Japan such as; Toyota Motor Corporation, Isuzu Motors Limited and companies from U.S.A. such as; General Motors Company and Ford Motor Company including companies from Europe have created the vision to let Thailand to be the center of the production and the car assembly of the world. Some companies have moved some categories of car production bases such as; Pick-ups that will be produced in Thailand as the main base which will use automotive parts that are produced in Thailand for 100% As a result, the export of auto parts has continued to grow steadily in 2017. The products in this category that have seen significant growth are tired, which are likely to grow about 3% from exports to USA. Crating such a vision for lifting the level to let Thailand to be the center of the production of automotive parts for exporting worldwide and can export cars into the world market further in the future (Office of Industrial Economics, 2003, p.3).

But in the current situation, the automotive industry of Thailand has to

adjust to enter into the competitive condition of the global supply chain which is the competition that will aim to develop the making of the research and the development of products to conform with the trend of the automotive technology in the future. This will focus on the saving of the energy that will be friendly to the environment and this has the safety standard. By Thailand has the obstacle that is the competitive condition with rival countries in ASEAN such as; Indonesia and the condition of lacking skillful labors in producing and assembling of automotive parts. This will give the effect to create the requirement in many labors in the automotive industry and new modern automotive parts which will have 46 industrial factories that would like to have aforementioned labors (Labor Office Rayong, 2017).

Other educational institute group which is coordination centre in producing and developing vocational manpower of Eastern Economic Corridor (EEC) in 3 provinces in the eastern region such as; Chachoengsao, Chonburi and Rayong will have to develop studied curriculums for both in vocational schools and universities for conforming with the requirement of labors in the automotive industry and the new modern automotive parts for letting Thailand to have the competitive capacity in making the research and the development of products related to new modern motor vehicles more. This will give the effect to create the research in the title of the preparation of the readiness in the education and the requirement of labors of the new modern automotive industry in the Eastern Economic Corridor (EEC) which will study about the development of the studied curriculum in the new modern automotive industry in the Eastern Economic Corridor (EEC) for contributing the capacity in labors of Thailand and this can lift the level of the automotive industry of Thailand to step

forward to the permanence in a global forum further in the future.

Objectives of the Study

1. For studying about the development of the studied curriculum in the new modern automotive industry in the Eastern Economic Corridor (EEC).

2. For studying about the level of the readiness of the labor market of the new modern automotive industry in the Eastern Economic Corridor (EEC).

Conceptual framework

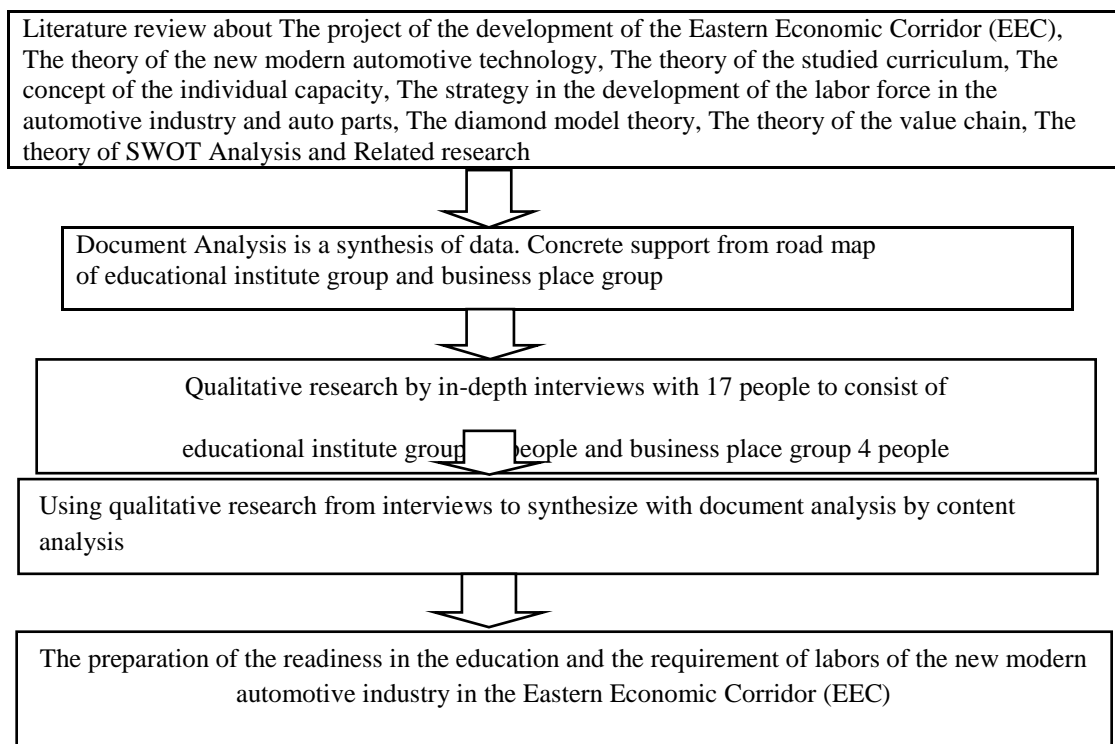


Figure 1 Conceptual framework

Obtained expected benefits

1. Ministry of Education can bring the studied result to use in the determination of the educational policy to match with the requirement of the labors of the new modern automotive industry in the Eastern Economic Corridor (EEC).

2. The business place can bring the studied result to use in planning in the labor

rate of the new modern automotive industry in the Eastern Economic Corridor (EEC).

3. The general people can bring the studied result to use to analyze the studied curriculum to conform to the requirement of labors of the new modern automotive industry in the Eastern Economic Corridor (EEC).

Literature review

For the preparation of the readiness in the education and the requirement of labors of the new modern automotive industry in the Eastern Economic Corridor (EEC), this will be as follows;

The project of the development of the Eastern Economic Corridor or EEC

The starting point of the Eastern Economic Corridor was happened approximately since the year of 1982 in the period of the government of His Excellency General Prem Tinsulanonda which the government had determined to let other agencies to join together to propel the major investment in the Eastern Seaboard and would use the aforementioned area to be the production base of other important industries. Those aforementioned projects would give the effect to let Thailand to step forward to be the front line of countries in the region and could step forward to be the center in producing motor vehicles and important auto parts. (Strategy and information group for provincial development, 2017, p.3)

Until to June 29, 2016, the cabinet had joined the meeting and had the resolve to agree with the principle of the project of the And the success of the project won't be happening if this has lacked of the support from the target group of every sector for both the government sector, the private

Eastern Economic Corridor Development (EEC) due to this had seen that the Eastern region was located in the best strategic point of ASEAN region. The project of the Eastern Economic Corridor Development (EEC) was the project that would develop the Eastern region of Thailand to be the leading economic zone of ASEAN for contributing 10 targeting industries and developing the infrastructure such as; the road, the train, the seaport and the airport for attracting investors and contributing investments in the area, including increasing the capacity in the tourism, the industry and the development of the city which would have provinces in the Eastern region that was under the development that were Chachoengsao, Chonburi and Rayong. The government had expected that the location of the project of the Eastern Economic Corridor Development (EEC) would be the important accelerator in stimulating to let Thailand move forward to the 4th Industrial Revolution Era that would merge the technology in the industrial sector to match with the information technology and would be the sparking in awakening the economy to grow sustainably in the long term since 2017 onward (Rayong Office, 2017).

sector, Thai investors and foreign investors, the civil society and for the most important thing that is the new young generation. Hence, the extremely important mission is

the communication to the above aforementioned target group for creating the perception, the understanding that will create the supporting and this will have the participation in propelling the project in the context of the digital communication that will be consisted of the mainstream media and the digital media or the social media including the public relations of the organization and the survey work of the area for creating the participation of the population also (The Eastern Economic Corridor Policy Committee, n.d.).

The theory of the new modern automotive technology

From the project of the Eastern Economic Corridor Development (EEC) for contributing 10 targeting industries that will give the effect to create the development of one in main industries of the eastern region that is the automotive industry. By the development of the conventional automotive industry is the new modern automotive industry that will focus on the saving of the energy that will be friendly to the environment and this has the safety standard. This will use the energy source such as; the solar energy, the wind power,

The water power, the coal energy and the energy from the natural gas that can replace the gasoline and the diesel oil. Besides, this has to do the contribution of the development of the software system, the embedded system and the research and the development of the new modern materials in producing parts that will develop to the motor vehicle that will connect to and can support the driving more such as; the automatic driving system including the development of the censor system, the electronics system and the system of the communication connection such as; the ride-sharing system, this aforementioned development will give the effect to let Thailand to step forward to the production

base of motor vehicles and the new modern auto parts that is clean and is friendly to the environment further in the future (Inwanna, 2012).

The theory of the studied curriculum

The vocational theory

The vocational theory is the preparation of the manpower to the career that has the high advanced skill in working. For the word of the advanced skill means the understanding in the role of the career which will have the basic skill in reading, writing, speaking and calculating. Those skills are held to be the important basic. Especially for the capacity in the language, the communication, the calculation in Mathematics and the process of the scientific thinking that will lead to the development of the career skill for practicing in the advanced level. This can analyze and solve the happening immediate problem while this is working. This can make to understand in the role of that career. By the international vocational student believes that the student in the vocational field can develop from learning in the system of the general education or the common education that is the one important element in the development to continue the knowledge for learning in the vocational field to be successful more. (The office of developing the economic competitive capacity, n.d.)

The importance of the general education will encompass about the education that has prepared for the labor force in order to create the development further in the future to be the person who can develop the capacity in working and creating the learning habit while this is in the world of working for all lifetimes. Hence, the important responsible role of the vocational education will have to be the education for developing the preparation of the readiness and the capacity in learning for all lifetime

in the working world and this will increase the learning for all lifetime of the vocational student. (The office of developing the economic competitive capacity, n.d.)

The target of the vocational education is bringing the knowledge related to the teaching for developing the career to everyone in every age group and in every community. And this will reduce the problem in entering to careers of many peoples with the existing career group. By this has the determination of the career group for letting the student to understand related to other careers that are in that group more than knowing of any one career or this will let the student to understand the word of the career world that will make to have the correct viewpoint related to the career group and this will prepare to enter to the career world that the student is expert in and is interested in. (The office of developing the economic competitive capacity, n.d.)

The vocational education is held to have the target for the development of the basic skill of the manpower or the development of the labor force to match with the requirement of the labor market. In order that, the production of the manpower must consider about many factors such as; the requirement of the man power in the industry, the policy in the development of the manpower, the capacity in the production and the development in the manpower of the school or the educational institute in the vocational education level. (The office of developing the economic competitive capacity, n.d.)

The vocational education will be held as the one part of the educational system that will have the duty in the development of the increasing of the productivity in the society and the nation under the agreement in the investment in the human resource more than this will be the development of the labor skill but it isn't for only this thing. This will help to create the increasing of the

production value under the employment also (Clarke & Winch, 2007 cited in Tipnak, 2014, p.6).

Objectives of setting the educational vocation

The educational vocation is the science that will develop the labor force to have the readiness in working by having the important objective of setting the educational vocation that are (Office of Vocational Education Commission, 2014);

1. This will add the basic requirement of the person for being ready for working.

2. This will develop the individual talent.

3. This will support and attract other labor forces which will develop the manpower to create the learning for all lifetimes in every form for having the good living and this will bring to the development of the economy of the country as same as with the theory of the Maslow's hierarchy needs and working.

For the thing that the vocational education shall develop for each student for working is (Office of Vocational Education Commission, 2014);

1. The skill and the attitude for the personal occupation.

2. The communication skill, the use of English language, the calculating skill and the skill in using the information technology and the computer technology.

3. The capacity in working.

4. Being the good people of the society and the development of the specialized skill for working.

5. The basic of the preparation to enter to the career and the learning for the working for all lifetime and the development of the study of the vocational education that must learn from the curriculum within the educational institute.

(Office of Vocational Education Commission, 2014)

For the studied curriculum in the aforementioned educational level, this will give the effect to the development of the labor force to have the skill in working more and this will prepare the labor force to enter into the working in other industries especially in the Eastern Economic Corridor (EEC) that has the requirement of many labors. Most of the requirement of labors will be in the main industry and one in that part is the new modern automotive industry. By the new modern automotive industry will have the labor requirement in the vocational education according to the curriculum that are;

1. Program in the mechanical technique.
 2. Program in the production technique.
- (Office of Vocational Education Commission, 2014)

The concept of the individual capacity

The capacity is the factor in working that will increase the competitive capacity for the organization. Especially for increasing the capacity in the management of human resources, because the capacity is the factor that will help in the development of the capacity of the personnel for giving the effect to the development of the organization. Other organizations will try to bring the capacity to use to be the factor in managing the organization in other sides such as; the management of human resources, the management of the curriculum, the development of the service or the development of the leadership of the executive etc. (Thongkaew, n.d.)

The strategy in the development of the labor force in the automotive industry and auto parts

The propelling commission of the national reform of Thailand has presented the direction and the creating of the opportunity in the new modern automotive industry and the new modern auto parts that

is the contribution of the investment in the business of producing of auto parts that is, “clean, economic, safe”, such as; the business of the production and electric passenger car assembly by using the tax measure including setting the testing center and the research of motor vehicles. The direction and the creating of the opportunity in the aforementioned new modern automotive industry and auto parts must use the lifting of the individual level and the entrepreneur for increasing the competitive capacity by the method of the personnel development in the group of automotive industry and auto parts both in the level of the operator and the engineer in the production, the research and the development and in the testing including creating the cooperation network between car operators and auto parts manufacturers. This will give the effect to create the strategy of the development of the labor force in the automotive industry and auto parts. (Thailand Automotive Institute, 2013).

For important factors to the development of the automotive industry and auto parts, the development of the automotive industry is needed to use 3 important factors such as; (Thailand Automotive Institute, 2013).

1. The development of the people or the development of human resources.
2. The development of the technology and the innovation that is used in the automotive industry.
3. The development in the production of the supply chain.

And the strategy of the development of the labor force in the automotive industry and auto parts will be consisted of 4 main strategies (Thailand Automotive Institute, 2013).

1st strategy: The development of the labor force to have the capacity in the international standard level.

2nd strategy: The development of the professional standard, the labor skill standard and the capacity standard.

3rd strategy: The development of the database system in the labor in the labor market, the requirement to develop the labor skill and the development of the network of the development of the labor skill.

4th strategy: This has set the institute to develop the medium and high level of human resources in the automotive industrial group

The diamond model theory

The diamond model is the conceptual framework or the model for analyzing the capacity in the competition of the enterprise network or the cluster which is the consideration and the evaluation of the current situation of 4 important business environmental factors that will give the effect on the capacity in increasing the productivity of the company that is in the cluster that will lead to the increasing of the competitive capacity in that overall cluster at last that those situations will have the promoting aspect or be the obstacle for the adjustment or the development of the productivity of the business or not, How?, and much or less including the analysis of the role of the government sector that will have the effect on 4 important business environmental factors also. In order that, aforementioned factors will be consisted of the condition in production factors and the condition in the demand (The office of developing the economic competitive capacity, n.d.).

The theory of the value chain

The value chain is the gathering of other activities within the organization which will study the analysis of those activities. This will analyze in the aspect of the chain that helps to create the value for the organization. No matter will be the cost

reduction or the creation of the difference. This will help the organization to be able to determine the weakness and the strength that the industry can bring the model of the analysis of this value chain to use in the evaluation of the level of having the effectiveness of resources which will consider for each activity. This main aim of the analysis of the value chain is the connection between the activity for analyzing and searching for the strength and the weakness in the strategy. This will search for the opportunity including the obstacle in the competition. And then this will bring to evaluate the efficiency of using resources and evaluating the effectiveness of the allocation of resources for bringing to find the improvement to the increasing of the capacity and the competitive capacity to be higher further (Kajornnun, 2009).

The theory of SWOT Analysis

For the analysis of strengths, weaknesses, opportunities and threats (SWOT) is the analysis of the condition of the current industry for helping the executive in that industry to know about other happening changes and the future trend including the effect of changing that will have on the ownership industry. By the aforementioned information will be the benefit for determining the vision, the mission, the strategy and other operational plans that SWOT analysis will be the analysis by surveying from 2 sides of the environment that are the inside environment and the outside environment (Akwissar, 2015).

Related research

Boonyasophon et al. (2006) have studied about the study of the requirement of the manpower at the university level for responding the development of the Thailand automotive industry which has studied about the requirement of the manpower at the university level in Program of Engineering

and related technologies with the process of designing the production and the controlling of the quality in the automotive industry. From the study, this is found that business places of the automotive industrial group have lacked of technicians, molds, Tools and Die engineering and equipments that aren't enough for the expansion of the automotive industry, including the Program in Automotive Engineering, Program in Management in Technological Production and Information Technology, Program in Design Engineering and Manufacturing Engineering of Machinery, Program in Manufacturing Engineering and Program in Polymer Engineering. This will have the need to have to produce more for the requirement of the man power who have the knowledge and the capacity in other sides of the job. This is found that engine parts are the job that most of business places have the requirement of the man power who have the knowledge, the capacity in designing the production and the controlling of the quality of products of engine parts most for both the man power in the level of Diploma / High Vocational Certificate (55.30 %) and the level of Bachelor Degree (57.58%). Besides, this will find that the executive of the business place has the opinion that the production of the man power in the university level of the Thai institution of education won't have the quality much enough. Because the new generation of students have graduated but they can't work if this hasn't given the training and the teaching for the job. They won't have the endurance in working. They don't want to work hard, would like to have the comfort job, have lacked of the skill of analyzing the job and they have their weaknesses in using and maintaining equipment, machineries and production equipment. The result that is obtained from the research will make the production plan of the man power of the country to have the clearness, the direction

and can reduce the risk in the production of the man power to match with the requirement in developing the country.

The research methodology

Tools that are used in the research

Tools that are used in this research is the interview for studying about the preparation of the readiness in the education and the requirement of labors of the new modern automotive industry in the Eastern Economic Corridor (EEC).

The gathering of the information

This will use the in-depth interview with 17 participants: 13 persons of the educational institute group which is coordination centre in producing and developing vocational manpower of Eastern Economic Corridor (EEC) and 4 persons of the business place group which is related to automotive industry that will use the method of recording, gathering of all information and using the open-ended question.

1. Rayong Technique College.
2. Mab Ta Phut Technical College.
3. Ban Khai Technical College.
4. IRPCT Technological College.
5. Bangsaen Technical College.
6. Thai-Austrian Technical College.
7. Chonburi College of Agriculture and Technology.
8. Eastern College of Technology (E. Tech).
9. Laem Chabang Engineering Technological College.
10. Chachoengsao Technical College.
11. Bangpakong Industrial and Community Education College.
12. Phanom Sarakham Industrial and Community Education College.

13. College of Agriculture and Technology, Chachoengsao.
14. Continental Tyres (Thailand) Co., Ltd.
15. KDI Services & Technologies Co., Ltd.
16. P Quality Machine Parts Co., Ltd.
17. Aisin Ai (Thailand) Co., Ltd.

The analysis of the information

In this study, this will use the analyzing method of the qualitative information. This will analyze by creating the code and putting the code of that information with the interpretation according to the content. This will analyze according to the issue of the researching question and will analyze the meaning of the feeling or will analyze the hidden significance that will include the interpretation and the significance in the context of the language and the language user also. For the information that have been received from the interview, the research will use for the listening and the conclusion of the content according to the issue of the question, the opinion and other recommendations that will have the effect on the preparation of the readiness in the education and the requirement of labors of the new modern automotive industry in the Eastern Economic Corridor (EEC).

The studied results

From the interview of the educational institute group which is coordination centre in producing and developing vocational manpower of Eastern Economic Corridor (EEC) and the business place group which is related to automotive industry, this can conclude that the preparation of the readiness in the education and the requirement of the labors of the new modern automotive industry in the Eastern Economic Corridor (EEC) that will be successful and this has to do systematically

and conformal which will use the cooperation of 2 agencies.

The educational institute or the technical college which is coordination centre in producing and developing vocational manpower of Eastern Economic Corridor (EEC) and the development of the curriculum together between the vocational teacher with the business place, including opening the opportunity to let the instructor of the college to enter to learn in the business place for bringing the aforementioned knowledge to teach the student to match with the requirement of the business place. Most of colleges will have Program that will match with the requirement of labors of the business place that is related to the new modern automotive industry such as; Program in auto parts, Program in Mechanical Power Technology, Program in Mechatronics and Robotics, Program in Electric Vehicle, Program in Mechanical Technique, The group of Machine Shop, The group of Production Technique, etc which is the branch that can improve the curriculum to be consist with the new modern automotive parts. And there are students that have graduated for both in the Vocational Certificate, the High Vocational Certificate in Program that is related to the new modern automotive industry approximately for 200-400 persons per year. But this won't have enough students for the requirement of labors in the new modern automotive industry. The college will have to produce more manpower and doing MOU together with the business place by using the bilateralism that is the management of the education. The business place will focus on students in the technician level due to when they have entered to work and they can work immediately. And most of educational institutes will would like to open additional programs in New Modern Automotive. By

most of additional aforementioned programs will be opened according to the plan of the college that is in the year of 2019 and some educational institutes have the plan to open Program in New Modern Automotive in the year of 2020.

This will conform to the agency of the business place. Especially, most of related business places with the automotive industry have the special technician in Mechatronic and Mechanical side, including the technician in Pneumatic side, the electrician, the welder, the mechanical engineer. Those are important vocational fields in producing auto parts that will still open to admit staffs in other positions and the business place will still have the requirement in technical labors in the Vocational Certificate and the High Vocational Certificate and many engineers for supporting the project of the Eastern Economic Corridor (EEC) which will consider the qualification of the technician from the specific position of the working experience. Besides, some business places will consider from the working result of the education for using for the decision in admitting the staff to work. For the reason that the business place will admit many staffs in the Vocational Certificate and the High Vocational Certificate due to the skilled craftsman has passed the training from the educational institute quite well. This will have the learning capacity and the working fluently and quickly. In the part of additional labors that are Program in IT and Program in Engineering related to the development of the machinery and the mechanical arm. Besides, the business place would like to let the college to increase the teaching in Program that is related to the innovation of increasing the productivity such as; the production of tires etc. For some business places will would like to let the college to develop the student to be smarted in English language and the computer in the level that can analyze including having the

student that can practice really such as; The knowledge in the machinery, CNC Program, Using of the measurement tool etc. And some business places would like to let the college to have Program that is related to the management tool that is the tool in the development in the efficiency in working to get along with the culture of the organization for each country.

Discussion

From the researched result of the preparation of the readiness of the education and the requirement of labors of the new modern automotive industry in the Eastern Economic Corridor (EEC). This can have the discussion as follows;

1. For making of MOU of the college with the business place, this is found that every college has the making of MOU with business places. By making of the aforementioned MOU is the bilateral system. This is the educational management and the development of the curriculum together between the vocational teacher and the business place including giving the student to enter to have the job training and the opening of the opportunity to let the instructor of the university to enter to learn in the business place for bringing the aforementioned knowledge to teach the student to match with the requirement of the business place. The requirement of the aforementioned business place will conform to the Diamond Model theory that will consider and evaluate the current condition of 4 business environmental factors. And this will lead to the increasing of the competitive capacity which will start from the condition of production factors. The business place will analyze factors in human resources that will give the effect on the condition in the demand that is the meticulousness and the claim in the requirement of the consumer on products and services of the business place. Hence,

for both the educational institute and the business place will have the cooperation in the development of the education to have the skill and the capacity for increasing the efficiency in producing products and services of the business place (The office of developing the economic competitive capacity, n.d.).

2. A program of the college that will match with the requirement of labors in the new modern automotive industry. This is found that most of colleges has programs that will match with the requirement of labors of the business place related to the new modern automotive industry such as; Program in auto parts, Program in mechanical engineer, Program in mechatronics and robotics, Program in electric vehicle, Program in mechanical technique, the machine shop group, the production technique group etc. This will conform with the theory of the studied curriculum in the vocational education level that is related to the new modern automotive industry that is Program in mechanical technique, Program in production technique (Tipnak, 2014).

3. For the requirement of labors in the new modern automotive industry, this is found that this won't have enough students for the requirement of labors in the new modern automotive industry. The college will have to produce the man power more. The business place will focus on students in the technician level due to when they have entered to work, they can work immediately. This will conform with the theory of the studied curriculum that in the vocational education is the tool. By this could say that in the late of 18th century that would enter into 19th century, this was the era that U.S.A. had the highest growth which would enter to the era of the industrial revolution. This would make the requirement of many trained labor forces and the problem that U.S.A. had to face at that time was the

problem of the movement of the settlement of many American peoples quite often. This would make to create the requirement of labors who had high knowledge and high capacity. This will be the origin of many copies of vocational laws in the later time (Finch & Crunkilton, 1993), (Tipnak, 2014).

4. For the requirement related to additional opening of programs and the plan to open additional programs related to the new modern automotive industry, this is found that most of educational institutes would like to open additional program in the modern automotive industry. By most of additional aforementioned programs will be opened according to the plan of the university that is in the year of 2019. But some educational institutes will have the plan to open Program in the new modern motor vehicle in the year of 2020 that will conform with the theory of the project of the Eastern Economic Corridor or (EEC) in the development of the eastern region of Thailand to be the leading economic zone of ASEAN for contributing 10 targeting industries. This will give the effect to let the college to would like to open additional programs for responding the requirement of business places that are in the aforementioned project of the Eastern Economic Corridor (EEC) (Strategy and information group for provincial development, 2017).

5. For the requirement of opening to accept the application of staffs who have graduated in the Vocational Certificate and the High Vocational Certificate level additionally, this is found that most of business places will still open to accept the application of staffs in other positions and business places will have required many labors in the technician level for supporting the project of the Eastern Economic Corridor (EEC) that will conform with the theory of the value chain in the supporting

activity in the topic of the human resource management (Kejornnun, 2009).

6. For technicians in business places, this is found that most of business places have specific technicians in the mechatronic and the mechanical side that is the important vocational field in producing auto parts. Besides, this will have specific technicians such as; Pneumatic technician, Electrician, Welder, Mechanical Engineer that are another important parts in manufacturing auto parts that will conform with the theory of the new modern automotive technology in the category and the working system of the hybrid car that must use specific technicians in the development of other systems (Thailand Automotive Institute, n.d.).

7. For the qualification of the technician, this is found that most of business places will consider the qualification of the technician from the working experience for the specific position before they will make the decision to admit the staff to work. Besides, some business places will have the test for the specific skill position and will consider from the working result of the education that will conform with the concept of Richard Boyatzis that has given the definition in the book of, "The Competen Manager: A Model of Effective Performance (Chunhaklai, 2006).

8. The business place has the requirement in many labors in the technician and the engineering side. Especially for labors that have graduated in the Vocational Certificate and the High Vocational Certificate level. By most required programs are in Program in IT and Engineer related to the development of the machinery and the mechanical arm that will conform with the research of Boonyasophon et al. (2006) in the study of the requirement of the man power in the university level for responding to the development of the Thailand Automotive Industry. By this has studied the requirement of the man power in the

university level in Program in Engineering and Technology related to the design process and the manufacturing and the quality control in the automotive industry, this is found that business places in the automotive industrial group will still lack of molding technicians, molding engineers and tools that aren't enough for the expansion of the automotive industry including Program in Automotive Engineering, Program in the management of the production technology and the information technology, Program in Design Engineering and Manufacturing of Machinery, Program in Production Engineering and Program in Polymer Engineering. This will have the need to have to produce more for the requirement in the man power that have the knowledge, the capacity in other sides of working. This is found that engine parts are the job that most of business places have the requirement in the man power that have the knowledge, the capacity in the design, the manufacturing and the quality control of auto parts most for both in the High Vocational Certificate (55.30%) and Bachelor Degree (57.58%).

9. Most of business places would like to let the college to increase the teaching in Program that is related to the innovation of increasing the productivity such as; the manufacturing of tires etc. For some business places, they would like to let the collect to develop students to be smarted in English language and Computer in the level that can analyze including having Program that students can work really such as; The knowledge in the machinery, CNC Program, The use of the measurement tool etc. and some business places would like the college to have Program that is related to the tool in the management that is the tool in the development of the efficiency in working to match with the culture of the organization in each country that will conform with the objective of setting the vocational education in the thing that the vocational education

shall develop for each student for working that is the skill and the attitude for the individual career including the communicating skill, the use of English language, the calculating skill and the skill in using the information technology and the computer technology (Tipnak, 2014).

Recommendation

Recommendation in this research

For the research in the preparation of the readiness in the education and the requirement of labors of the new modern automotive industry in the Eastern Economic Corridor (EEC), this can conclude issues as follows;

1. For the preparation of the readiness in the education is the other one factor that is important for the development of the project of the Eastern Economic Corridor (EEC) due to the college has known about the requirement of labors in the new modern automotive industry. This will give the effect to let the college to be able to open Program that will match with the requirement in the new modern automotive industry of the business place. By the college must give the public relations to the people and the children to acknowledge about the good point of the vocational education level that will create the trust and the good image for the vocational education including the cooperation with the government and the business place in training the skill of the student to work in Program of the new modern automotive industry, according to the requirement of the business place. And this has to create the confidence for the people that your children can enter to work in the business place immediately after they have graduated. In the development of the personnel in the education, every college shall survey the specific skill of each instructor in the college that there is any instructor that has graduated

in the motor vehicle. After that the college shall send the aforementioned instructor to receive the training for increasing the specific knowledge in the new modern automotive industry and this can bring to teach the student to match with the requirement of the business place. The aforementioned training shall be the training in the real business place that is the business place that the college has done MOU with and this shall cooperate with Ministry of Education in designing the specific curriculum for the new modern automotive industry for responding the requirement of labors of the business place as the another way. The aforementioned curriculum shall be the overtime education that is giving the student in the High Vocational Certificate to study additionally after the student has finished the class hour in each day or this has to study additionally from Saturday to Sunday for being the preparation of the readiness before the student has entered to work. And this shall have to intervene the specific curriculum for the new modern automotive industry in the previous curriculum for teaching the student in the Vocational Certificate to prepare the readiness before the student has entered to study further in the High Vocational Certificate.

2. For the decision to study further of the student, the educational institute in the high school shall intervene the knowledge in the project of the Eastern Economic Corridor (EEC) and the studying further in the vocational education level into studying subjects, guidance subjects including Homeroom subjects for being the alternative for the student in the decision for the further studying. And the vocational college shall set specific examination questions for screening the student that has the clear specific skill such as; this will set specific examination questions related to the new modern automotive industry etc. Besides,

the vocational college shall set the short term curriculum that is related to the new modern automotive industry by persuading the lecturer of the business place to enter to teach the crash course for the student that has decided to study further in the vocational field for being the basic knowledge before the student will enter to study further in the field that he requires.

3. For entering of the project of the Eastern Economic Corridor (EEC), this will give the effect to create investments of business places more. For aforementioned investments, this has to use many labors for working. This will give the effect to let the business place has to enter to request the cooperation or make MOU together with vocational institutes in producing students to cope with the requirement of the business place. For the production of aforementioned students, this has to use the public relations in every sector to acknowledge. The business place will shall cooperate with the educational institutes in the high school level for entering to guide the further studying in the vocational education level and stimulating students to be interested in studying in the vocational education level more. This will give the effect on many increasing labors. Besides, the human resource department shall prepare the personnel training of the business place. In the case that the business place has admitted staffs to work but they won't have still the skill enough for working. By this is the training in the specific field of the staff and this has done MOU in the bilateral system with the vocational college for sending staffs to enter to study further in the new modern automotive industry which will use the method of the testing for snatching the scholarship from the business place and using the examination that the college is the test designer.

Recommendation in doing the research in the next time

1. This research is just only giving the one side information that is on the side of the new modern automotive industry. Hence, for the next research, this has to study to cover for getting the information for the preparation of the readiness of the education and the requirement of labors of 10 main industries in the project of the Eastern Economic Corridor (EEC).

2. This research has studied about the preparation of the readiness in the education of the new modern automotive industry that is only the education in the vocational education level only. Hence, for the next research, this shall study about the preparation of the readiness in the education of the new modern automotive industry at the university level also for getting various information both in the vocational field and in the general education field.

3. This research will aim to study only the requirement of labors of the new modern automotive industry. Hence, for the next research, this shall study about the detail in the privilege that the labor shall receive in working in the business place for the decision in entering to work of the student further.

4. Due to this research has aimed on the labor as the main point. But this doesn't say about the government policy that will contribute the development of the Eastern Economic Corridor (EEC) as it shall be. Hence, for the next research, this has to study the government policy in the development of the Eastern Economic Corridor (EEC) more.

Limitations

1. Interviewing educational institution group is just an interview within vocational institution which is coordination centre in producing and developing vocational

manpower of Eastern Economic Corridor (EEC) only.

2. Interviewing the group of business place is just an interview which is related to automotive industry which is not the new automotive industry.

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