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# STRATEGY FOR DEVELOPING THE QUALITY OF EDUCATION ACCORDING TO DEMAND THAT MEETS THE NEEDS OF MANPOWER IN THE THAILAND'S EASTERN ECONOMIC CORRIDOR

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## Abstract

This research aims to 1) study causal factors, 2) explore theoretical models, 3) create and validate appropriateness, and 4) evaluate strategies. The research consists of three phases: 1) studying causal factors with a sample group of 460 administrators and teachers, 2) studying development strategies with seven qualified individuals, and 3) evaluating strategies with five qualified individuals using focused surveys. The findings revealed that the causal factors for strategic implementation were future industries and potential existing industries, in that order. The educational objectives consisted of five aspects: family factors, school factors, personal factors, economic factors, and social factors. The direct influence, indirect influence, and overall influence in the structural equation model indicated that the variables significantly predicted the strategy for developing the quality of education in response to the objectives at a significance level of .05. Specifically, future industries and potential existing industries had a significant influence on the strategy for developing the quality of education in response to the objectives. The confirmatory factor analysis confirmed that the model for measuring the strategy for developing the quality of education in response to the objectives was structurally accurate. The evaluation of appropriateness and feasibility indicated a high level of both factors.

**Keywords:** Quality of Education, Manpower, Thailand's Eastern Economic Corridor

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## Introduction

Planning education management to meet the increasing demand for human resources is crucial in all sectors. Human resources or learners who will become important labor in the future are the most important factor among other economic factors. Therefore, planning education management based on the need for human resources, which sees education as a tool for development, economy, or workforce production according to economic needs, is a major goal, especially in economic development areas. It is important not to underestimate investment in education compared to other areas (Khowchernklang, 2021). This is to support high-tech industries and future industries in the Eastern Economic Corridor (EEC) or Thailand's Silicon Valley, as stated in the personnel development plan for the area. Furthermore, in the dimension of learners or future human resources, in the economic perspective, education and participation in education by the population can be both consumption and investment. If learners have aspirations to pursue a career and be socially accepted for future opportunities, the need for education or the desires of individuals to pursue education for professional purposes or other satisfactions, also known as "educational aspirations", can be understood. Therefore, understanding the relationship between factors that affect the aspirations of individuals to become future human resources at each level of education in the economic development area of the EEC can provide data or equations to predict the educational aspirations in each level and field that are necessary but lacking. This can be used to develop an "education management strategy" that can meet the human resource needs in the economic development area, along with the learners' aspirations in each field and level of education in the area (Eastern Economic Corridor Office of Thailand, 2018). Based on the preliminary reasons mentioned, the researcher is interested in studying the strategies for improving the quality of education management in the economic development area of the EEC. This study aims to determine guidelines for formulating education management strategies in the economic development area of the EEC by studying the need for human resources at the macro level, along with studying the causal factors that determine the educational aspirations of individuals to ensure efficiency in education management in producing responsive human resources, particularly those who will be important in the future.

## Literature Review

The study explores the concept and strategies for educational development in the economically special EEC region of Thailand. These strategies include the need for human resource development, fostering competitiveness, enhancing capabilities across all age groups, and building a learning society. Additionally, it emphasizes the importance of equal opportunities and social equality. According to Chairat (2021), the human resource development strategy for the EEC region includes developing existing industries with potential and creating future industries. Furthermore, Khowchernklang (2021) highlights the educational objectives of learners, which encompass personal factors, educational institutions, family factors, economic factors, and social factors.

## Research Methodology

### Population and Sample

School administrators at basic level educational institutions in the EEC, totaling 1,514 individuals. The research sample is determined using the sample size calculation method proposed by Schumacker & Lomax (2010) and Hair et al. (2010), suggesting the use of the rule of thumb, which is a sample size of 10 samples per observable variable. Since this research has 23 observable variables, the required sample size is 230 samples. Therefore, the researcher establishes a sample group of 230 educational institutions, with 2 individuals from each institution, resulting in a total sample size of 460 samples.

Qualified individuals involved in creating and developing strategies to improve the quality of educational management that meets the needs of the workforce in the EEC, selected through targeted sampling, totaling 12 individuals. Qualified individuals responsible for evaluating the strategies, namely school directors in the EEC, totaling 30 individuals.

### **Data Collection and Data Analysis**

This research utilizes research and development methodology, which is divided into 3 phases as follows.

Phase 1: A questionnaire to gather opinions on the development of educational management quality in response to the needs of the workforce in the EEC region. Creation and validation of the questionnaire by studying relevant documents and research, identifying factors and strategies, and developing a Likert scale questionnaire with 5 levels following the method of Likert. The questionnaire was then reviewed by 5 experts to ensure content validity. Questions with IOC values between 0.60-1.00 were selected for testing with 30 administrators and teachers who part of the data-giving group were not. The reliability of the questionnaire was assessed using the alpha coefficient, resulting in a reliability score of 0.926. Data collection and analysis methods for opinions on the strategies for developing educational management quality in response to the needs of the workforce in the EEC region. Statistics used in data analysis include basic statistics such as percentages, averages, and standard deviations (Srisaard, 2011). Another analysis technique is the Confirmatory Factor Analysis (CFA), which involves statistics such as the chi-square statistic, the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residual (RMR).

Phase 2: Step 1 involves developing a strategy by utilizing information obtained from studying educational management quality. This strategy will determine the components and framework for improving educational management quality in response to the human resource needs in the EEC region. It will be presented to five experts for their input. Step 2 involves developing an educational management quality improvement strategy based on the identified objectives and in response to the human resource needs in the EEC region. This will be done by a group of seven qualified individuals selected for their specialized expertise. The tools used in research are interviews on the strategies for developing the quality of educational management in response to the needs of the workforce in the EEC. Creating and finding the quality of tools by studying and analyzing concepts, theories from relevant documents, textbooks, and research papers. Creating interview forms based on predetermined topics, verifying accuracy, presenting the modified and revised interview forms to five expert panels for validation. Selecting questions with an IOC value ranging from 0.60 to 1.00 as the interview questions. Data collection through group interviews. Data analysis through content analysis.

Phase 3: The research tools used are a strategic quality development management assessment form based on the objectives that meet the needs of the workforce in the region's economic periphery, with 5 levels of approximation. Finding the quality of the tools by studying the method of creating an assessment form from documents, creating a 5-level approximate assessment form for presentation to 5 experts, selecting questions with an IOC value ranging from 0.60-1.00. Data analysis using pre-set software, utilizing basic statistics, such as mean and standard deviation.

## **Research Results**

According to the study, the causal factors of strategic educational quality management in response to the needs of the workforce in the EEC can be categorized into two areas. The future industries have the highest average value, while the traditional industries with potential have the lowest average value. In terms of the educational objectives of the learners in five aspects, the family factor has the highest average value, followed by the school factor, personal factor,

economic factor, and social factor with the lowest average values. The direct influence, indirect influence, and overall influence in the structural equation model indicate that the future industries (.380) and the traditional industries with potential (.215) have significant influences on the strategic educational quality management in response to the needs of the workforce in the EEC. This statistical significance is at the .05 level.

The analysis of the confirmatory factor components revealed that the strategic measurement model for educational management quality development, in response to the human resource needs in the eastern economic region, is structurally sound. This conclusion is supported by the statistical values:  $\chi^2 = 10.344$ ,  $df = 6$ ,  $p = .111$ ,  $\chi^2/df = 1.724$ ,  $RMSEA = .047$ ,  $CFI = .995$ ,  $TLI = .988$ ,  $SRMR = .013$ . These values meet the criteria, with a high enough p-value to accept the hypothesis that the measurement model is structurally sound. The analysis also indicates that the CFI and TLI indices are close to 1.000, while the RMSEA and SRMR indices are close to 0. Additionally, the  $\chi^2/df$  value is less than 2. The analysis of the reliability of the measurement indicators ( $R^2$ ), which represents the proportion of variance explained by the latent variables, shows that all indicators are statistically significant at the .05 level, with acceptable values ranging from .401 to .792.

Evaluation of the appropriateness and feasibility of the vision, mission, objectives, strategies, and tactics in the strategy for developing the quality of educational management in response to the needs of the human resources in the EEC region reveals that the level of appropriateness is high, and the level of feasibility is also high. When considering the average values for each item, it is found that the item with the highest average value for appropriateness is objective 1, and for feasibility, it is vision and mission.

## Conclusion and Discussion

The strategy for developing the quality of education in response to the needs of the workforce in the EEC focuses on two aspects: future industries with the highest average potential and traditional industries with the lowest average potential. This aligns with the research of Ngaopatcha (2020) on the readiness of Thai entrepreneurs in the S-Curve industries to enter the era of Thailand 4.0. The research found that the readiness to enter Thailand 4.0 does not differ based on personal factors such as gender, age, and education level among Thai entrepreneurs in the S-Curve industries. However, the readiness does differ based on professional factors within the S-Curve industries. In addition, the knowledge and understanding of Thailand 4.0 among Thai entrepreneurs in the S-Curve industries impact their readiness to enter Thailand 4.0. This is consistent with the research of Poompruk & Erbim (2021) on the market dynamics in the future industries in Thailand affected by the digital transformation. The research found that market dynamics in the future industries are imbalanced due to rapid technological changes and the necessity for businesses to adapt to new modern technologies and innovations. However, many sectors of the manufacturing industry are unable to adjust quickly due to the conditions of both the producers and consumers. Therefore, it is time to prioritize the importance of market dynamics in the future industries to ensure a balanced and prosperous economy for Thailand's future industrial sector.

The strategy for developing the quality of education management in response to the needs of the workforce in the EEC region encompasses five aspects. The educational objectives of the learners in this region are generally high. Family factors have the highest average value, followed by school factors, personal factors, economic factors, and social factors. These findings are consistent with the research conducted by Khowchernklang (2021). The educational management strategy that meets the needs and objectives of the learners in the EEC region has found that: 1) During the period of 2019-2021, the old industries with the highest potential had the highest demand for vocational education, followed by demand for undergraduate education. The next group is the future industries that require vocational and

undergraduate education. Meanwhile, third-year students in the EEC area have a desire for general education and vocational education. The determining factors for their educational objectives are gender, academic performance in secondary education, education level of parents, total income of parents, job opportunities, and labor demand in the industrial groups. 2) The current state of education management in response to the needs and objectives of the learners has an overall moderate level. The lowest current state is in education system entry, while the desired state has an overall high level, with the highest desired state being in the area of teaching and learning process. 3) The strengths and weaknesses of education management that meet the needs and objectives of the learners in the EEC region, based on an analysis of the internal environment, are as follows: The production of education has the highest strength, while the teaching and learning process has the highest weakness. In terms of the external environment, technological factors are the greatest opportunity for education management, while political and policy factors pose the greatest threat. 4) The education management strategy that meets the needs and objectives of the learners in the EEC region consists of three main strategies: The first strategy is to transform the selection and admission system of learners in the EEC region to focus on meeting the needs of learners in line with the workforce objectives. The second strategy is to enhance the involvement of employers in the development of curricula that aim to create urgent competencies for learners. The third strategy is to reform the standards for school assessment, focusing on post-graduation employment and meeting the needs of the workforce in the EEC region. These strategies include strategies for stability, opportunity creation, and creating a quality of life that is environmentally friendly.

### **Recommendations For Implementing Research Findings**

- 1) The government should develop educational policies that can stimulate and motivate schools in the EEC to follow the human resource development plan or focus on objectives as the main priority.
- 2) There should be an expansion of education management based on work, through the transfer of state schools or support for private sector leadership in special educational projects in quality institutions that produce high-quality human resources.

### **Recommendations For Future Research**

- 1) There should be a more in-depth study of high-quality data on the needs of both quantity and quality of human resources, to find ways to manage education that can meet the needs of learners.
- 2) There should be a study on post-COVID-19 education management strategies in the EEC area, to find ways to meet the human resource needs in the crisis situation and the important role of technology in driving education in such circumstances.

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