



Regional Educational Reform in Thailand: Needs Assessment and Personnel Management 4.0 for the 21st Century

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Received 28/01/2022
Revised 17/02/2022
Accepted 17/02/2022

Abstract:- *Personnel management 4.0 was employed as the framework for exploring the educational personnel's perspectives on the regional educational reform in Thailand. This study aims to use the needs assessment and personnel management 4.0 for the 21st-century framework to understand the regional educational reform in Thailand. The mixed-method research methodology was employed in this study. Quantitative was collected by needs assessment through a questionnaire survey with the educational personnel from four regions in Thailand. Qualitative was collected by participatory action learning through brainstorming to the data. Needs assessment showed that the internal and external environment was at a high level and the desired condition was at a very high level. High needs regarding organizational plan leadership and strategic planning, measurement and knowledge management and focusing on organization, respective. Also, the relationship among educational administrators' perspectives on regional educational reform under the personnel management 4.0 framework was statistical significance. Key findings are discussed and their implications are also presented.*

Keywords: Personnel Management 4.0, the 21st Century, Needs Assessment

Introduction

The enactment of the Constitution of the Kingdom of Thailand B.E. 2540 (A.C. 1997) (1997) led to several major changes in Thailand including education. It subsequently led to the proclamation of the National Education Act B.E. 2542 in 1999 (Office of the National Education Commission, 1999). The educational reform was placed as an ultimate goal of the National Education Act B.E. 2542. Although several efforts are put into driving educational reform in Thailand, there still are many problems and gaps. Thailand still faces the serious and complex problem of education in regions concerning the system, organizational structure, and personnel management. Thus, in 2017, the National Council for Peace and Order (NCPO) (2016) enacted the "Regional educational reform under Ministry of Education" order for solving the educational problems at a regional level in Thailand. Order no. 5 is the key content of this regional educational reform. It orders "to set 18 Regional Education Offices nationwide to be responsible for driving education in the regional and provincial levels by supporting, encouraging, and developing education through collaboration and integration with other institutes under Ministry of Education and/or other agencies or institutes." Regional educational reform is an emerging educational phenomenon in Thailand and there is a need to explore the issues related to its implementation. The main issue regarding educational personnel is human resource management (HRM) for appropriately serving education for Thailand 4.0 and the 21st century. Agriculture, light industry, and advanced industry were major emphases of Thailand 1.0, Thailand 2.0, and Thailand 3.0, respectively. Anyway, the emphases of Thailand 4.0 are the innovative and value-based economy. In sum, Thailand 4.0 is an economic model that aims to unlock the country from several economic challenges resulting from the past. The challenges of Thailand 4.0 are to overcome "a middle income", "an inequality", and "an imbalanced" traps. Thailand 4.0 has four objectives: a) economic prosperity, b) social well-being, c) raising human values, and d) environmental protection (Royal Thai Embassy Washington D.C., 2017). The transition from the 20th century to the 21st century led to social, economic, environmental, cultural and educational, organizational, management political changes (Masintree, 2015). Education for the 21st century must be changed. Up to this, education is



regarded as one key success factor for driving Thailand to be Thailand 4.0. Several initiatives are launched by the Ministry of education to prepare learners as Thai citizens to be ready for Thailand 4.0 and the 21st century. Such initiatives are, for example, an implementation of science-technology-engineering-mathematics (STEM) education, the inclusion of vocational education in the basic education schools, regional educational reform, and so on. Educational personnel, such as school administrators, in schools in regions, are regarded as key persons for the success of educational reform in the regions. They should be occupied essential knowledge, skills, and competencies related to Thailand 4.0 and 21st-century education. School administrators should employ suitable personnel management strategies to acquire and develop their educational personnel to the best potential, as well as retain them.

Personal management 4.0 had been proposed as a framework for educational personnel management for the 21st century (Jedaman. P., 2017). The school administrators must be able to lead and manage their school staff for cooperative working to achieve the goals of quality education efficiently and sustainably. Thus, leadership is regarded as one critical characteristic of good school administrators that can ensure the success of schools. Leadership is a process of influencing a person to behave in the desired direction for the organization (Barro, 1991). In this paper, personnel management 4.0 was employed as the framework for exploring the educational personnel's perspectives on the regional educational reform in Thailand. The findings from this paper are expected to contribute, to some extent, to the current movement of educational reform in Thailand. The paper is organized as follows, will first conduct a needs assessment and personnel management 4.0 for the 21st-century framework to understand the regional educational reform in Thailand this study is to, a) analyze the educational personnel's perspectives on problems and solutions of regional educational reform by using the personnel management for the 21st-century framework, b) conduct needs assessment of the educational personnel regarding the regional educational reform, c) explore the relationship between the educational personnel and their perspectives on regional educational reform.

Thailand 4.0

Thailand 4.0 is an economic model that aims to unlock the country from several economic challenges resulting from past economic development models emphasizing agriculture (Thailand 1.0), light industry (Thailand 2.0), and advanced industry (Thailand 3.0). These challenges include “a middle-income trap”, “an inequality trap”, and “an imbalanced trap”. Thailand 4.0 has four objectives: a) economic prosperity, b) social well-being, c) raising human values, and d) environmental protection. The economic prosperity objective aims to create a value-based economy that is driven by innovation, technology, and creativity. The social well-being objective deals with building an inclusive society that moves forward without leaving anyone behind through the realization of the full potential of all members of society. In the raising human values objective, the aim is to transform Thai into “competent human beings in the 21st century” and “Thais 4.0” in the first world. Also, the environmental protection objective deals with a livable society that possesses an economic system capable of adjusting to climate change and a low carbon society (Royal Thai Embassy Washington D.C., 2017). To achieve Thailand 4.0, the Thai government has the five agendas, that is, Agenda 1: prepare Thais 4.0 for Thailand becoming a first-world nation. Agenda 2: development of technology cluster and future industries. Agenda 3: incubate entrepreneurs and develop networks of an innovation-driven enterprise. Agenda 4: strengthening the internal economy through the mechanisms of 18 Provincial clusters and 76 Provinces. Agenda 5: integrating with ASEAN and connecting Thailand to the global community. In particular, to agenda 1, Thai people are regarded as the most important element in the development of Thailand 4.0. The model aims to transform Thais' into more competent human beings in the 21st century and develop Thais' 4.0 as first-world citizens. In doing so, there is a need to reform the education system by transforming the learning ecosystem into purposeful learning, generative learning, mindful learning, and result-based learning. These shifts will lead to changes in goals and administration of the education system, teachers' skills and teaching paradigm, curriculum, and teaching and learning methods. (Royal Thai Embassy Washington D.C., 2017) Educational movement for Thailand 4.0 to serve Thailand 4.0,



the 2nd National Economic and Social Development Plan A.C.2017-2021 (B.E. 2560-2564) (Office of the National Economic and Social Development Board, 2017) states 10 strategies and one of them is the Human Capital Building and Development strategy. Three major guidelines in human capital Building and development strategy include a) adjusting values in Thais to have moral and ethics, disciplined and public minds, and desirable behaviors, b) developing potential regarding knowledge, skills, and capacities in well-being, and c) shifting quality of education and life-long learning. Education is regarded as a key success factor in driving Thailand 4.0, especially the human capital building and development. In 2017, the Ministry of education announced the national education plan A.C. 2017-2036 (B.E. 2560-2579) (Office of the Education Council, 2017) with the vision that “All Thais are deserved for quality education and life-long learning, living with happiness being aligned with the sufficient-economy philosophy and 21st-century changes.” There are four major objectives in education: a) to develop effective education system and process; b) to develop good citizen with desirable characteristics, skills, and competencies as stated in the constitution of the Kingdom of Thailand, the national education Act, and national strategy; c) to develop knowledge-based society living with moral and in harmony for the sustainable development of the country with sufficient-economy philosophy; and d) to bring Thailand to overcome the “middle income” and “inequality” traps. Education and human resource development (HRD) are closely related to each other. Several ideas about HRD and HRD for the 21st century is presented in the following section.

HRD for the 21st Century

The 21st-century world occupies a new array of changes as globalization, technological advancement, and changes in the political and legal environment. Human resources have started to be seen as an inimitable and most valuable factor for organizations to gain a competitive advantage. The great challenge of HRM is to attract, retain and talented employees. In particular, to the 21st century, Tatte (2015) presented the challenges of HRM including attracting and selecting the best candidate, promoting organizational culture, career development of the employees, adopting human investment perspective, making new retention and motivation strategies, conflict management, managing virtual workplace and e-commerce, and business ethics and values. Talent also pointed out that these challenges affect the human resource personnel who needs cross-cultural training so that they understand other cultural people. The role of human resource personnel will be higher globalized to emerging trends in recruitment, motivation, and retention. They should adopt the change at internet speed and be on a continuous lookout for the innovations as they say “innovation is the key to success”. Also, differences can arise among the internal management as they can divide into groups of tech-savvy. To overcome these challenges the HR managers will have to build a standard structure that allows managing all different workforce alternatives. This way the organization maintains its competitive advantages. Many scholars presented ideas about HRD for the 21st century. Tan (1997) mentioned global and regional trends of HRD in Asia and the Pacific as globalization, economic restructuring, cross-border Asian investments, changing organizational structures/work patterns, rapid knowledge obsolescence. He also proposed HRD issues and challenges in Asia and the Pacific in the 21st century: strengthening primary and secondary education; upgrading the basic education of the workforce; expanding and improving in-company training; expanding post-secondary technical education and training; expanding scientific and technological manpower; upgrading skills in the service sector; continuing education and training; greater employers' involvement in education and training; and adapting education and training to the market economy. Akpanabia (2012) presented the management approach for effective management in the 21st century. There were four major management theories presented including scientific management, human relations theory, modern theory, and eclectic theory. All management theories starting from the classical (scientific) theory to eclectic theory are all part of a system that cannot work in isolation of another. That is to say that the machine theory irrespective of its deficiencies is the cornerstone upon which the house of modern management was built. The 21st-century managers should be dynamic, flexible, and adaptable to various theories of management, to be



able to synchronize the various options available to produce the desired result of effective management. Eclectic management has broadened the horizon of both managers and scholars since they are now at liberty to combine all necessary approaches to produce the best result. In the Asia-Pacific context, Rowley and Warner (2007) presented trends on HRM in Asia. First, HRM in Asia has a strong foreign influence, especially from the US. Second, the state has played a 'strong' or 'very strong' role as in 'state-led development'. This is not only in the modernization process but also in, for example, the role of active labor market policies. Third, the stage of economic and social development influences the people management system in Asia as it is related to the functional, social and institutional framework. Both national cultures and values continue to steer development paths and shape HRM. Lipiec (2001) mentioned about HRD perspective at the turn of the century including the Strategic approach to HRM, standardization, decentralization of human resource concept, new competencies required, and education and training. The strategic approach emphasizes the use of HRM concepts to achieve competitive advantage. There is a need to join the strategic plans of the company with the human resource strategy. In standardization, there are two types: legislative and cultural standards. The decentralization concept deals with the decentralization of human resource managers' duties to the smaller units that increases more flexibility to units, and more appropriate decisions made by managers. The new competencies are required from the new, emerging paradigms. In education and training, it is also important to allow workers to acquire new skills, thus training and retraining programs should be offered. The mainstream should be internalization management to address the globalization aspects with a focus on cultural values and the habits of different countries. Sonmanee (2016) mentioned the rapid change of HRM in the globalization era. In business, HRM needs to be adjusted to suit the economical, political, and social changes. Sonmanee stated that human resources management must be able to determine the possibility of changes in several areas and define strategies being appropriate to cope with such changes. The information technology must be applied to assist the decision-making related to human resources management and organizational business plans. The quality of human resources management must be maintained to achieve the sustainable success of the organization. Suthamdee and Suthamdee (2017) proposed the conceptual framework of HRD of an organization in the 21st century. They emphasized that HRD should start by collecting data from various sources to evaluate current practices and gaps and then bring the data to effectively formulate an operational plan. The conceptual framework of HRD of an organization in the 21st century emphasizes the dynamic of contextual change in a holistic view, diversity management, knowledge management, learning partnership, and authentic workplace learning. Throughout the process, the organization should provide essential supporting factors for enhancing the success of organization. HRD is also linked with education as Supsuk (2016) mentioned that HRD for the 21st century must deal with preparing children for life-long learning and essential skills as 3R7C including reading, (W) riting, (A) rithmetics, critical thinking and problem solving, creativity and innovation, cross-cultural understanding, collaboration, teamwork and leadership, communications, information and media literacy, Computing and ICT literacy, career and learning skills. A school is regarded as an important organization for HRD for the 21st century. In doing so, the school must create a teaching and learning environment suitably for cultivating desirable characteristics for the 21st century such as cultivating imagination, creativity, and innovation, using relevant technology, tools, and resources, and practicing individual and team works in real contexts. Also, the professional community and organization should be invited to participate in teaching and learning in the school. The school should promote education for future careers with a clear vision, mission, and goals to prepare students to be a knowledgeable and skillful workforce with productivity, accountability, and responsibility. To deliver quality education, educational administration is regarded as one key success factor. Sarnrattan (2014) proposed education administration in and for the 21st century. He stated that the administrators of schools and Educational Service Area Offices need both administration and leadership characteristics. Educational administrators must be educational policymakers, who determine the educational policy and goals by considering the holistic view of the organizations as well as external factors. They should have a vision and ability to inspire people, cultivate change and build the future,



be initiatives, self-disciplined and life-long learning, aim for efficiency, empower staff and distribute power horizontally, and support collaborative decision-making and problem-solving. In addition, Phangthai (2016) mentioned that educational administrators for the 21st century must possess several desirable characteristics. The 21st-century educational administrators must be aware of any change, develop themselves to best potential, adjust organizations to be modern organizations, develop the staff to be a learning person, cultivate new paradigm in the organization, regarding the achievement-based practice as the organizational culture, drive organization with new management strategies, support enough budget and materials, build a relationship with people both inside and outside schools, motivate teachers to change for modern teaching methods, develop curriculum emphasizing the use of technology and integration with social and life skills, adjust roles of learning networks inside and outside school, and bring all partners including parents, alumni, and local communities to join in education in school.

Research about HRD in Thailand

Junprasit (2016) studied the process, problems, and obstacles of HRD for academic personnel at Bunditpatanasilpa Institute as well as compared the HRD opinions among the sample. Junprasit found that the overall level of HRD process for academic personnel at Bunditpatanasilpa Institute was at a high level and the HRD problems and obstacles were at a middle level. There were no significant differences among the HRD opinions held by different academic personnel. At final, the HRD process was proposed as Training following personnel needs; Providing sufficient budget for personnel education; and Promoting personal self-development as on-the-job training. Plenjit (2015) studied and compared the teachers' opinions on management skills in the 21st century of the administrators in basic education schools under Nakhonpathom Primary Educational Service Area Office 1. She found that the level of the administrators' management skills was at a high level in both overall and individual aspects. The level of management skills ranged from leadership and responsibility, social and cross-culture, flexibility and adaptability, productivity and trustworthiness, to creativity and self-confidence. Also, there was no significant difference in administrators' management skills in schools of different sizes. There are two documentary studies about HRD for the 21st century. Tantrajin et al. (2016) reported the literature review on human capital and HRD in the 21st century that human capital development is an ongoing process that must be continued to deliver the work's efficiency and affect high performance. To develop human capital to the competitive potential, it is most important to strengthen human resources. The emphases of human capital for the 21st century are adjusted to suit the changing global trends and society including changing thinking processes to be more innovative thinking, creative thinking, holistic thinking; shifting paradigm and behavioral to be more far-sight vision; and preparing ability to lead and initiate new changes. Pothongsangarun (2016) reviewed the literature and proposed generation gap management as being important for the efficiency and effectiveness of organizations in the 21st century. The leader of the organization has to adjust themselves and use opportunity from dominant characteristics of people in each group for maximum benefit to the organization by adjusting strategy on human resources as follows: 1) collaboratively specifying the work scope; 2) associating the remuneration with the work performed as much as possible; 3) specifying the clear career or progress path regarding duty, work, period, skill, and expected outcome; 3) arranging space and time for knowledge sharing within the team; 5) building trust and respect in the team; and 6) having a vision, adjusting organizational culture and focusing on technology.

Personnel management 4.0 in 2015, there were 21,300 primary schools (3,244,395 students) and 9,516 secondary schools (2,846,148 students) under the Ministry of Education. The educational personnel included 26,177 school directors, 6,335 deputy directors, and 367,287 teachers (Office of the Basic Education Commission, 2015). The Ministry of Education has the major responsibility to prepare Thai citizens for ensuring a stable, prosperous, sustainable economy under the sufficiency economy philosophy (Ministry of Education, 2010). The quality of education in schools is inevitably dealt with the effectiveness of school management. School administrators are therefore a key factor in driving the success of schools with quality education. Jedaman (2015) mentioned several issues about educational reform for the 21st century in Thailand including education with the shortage of personnel, technology



savvy, cultural diversity and conflicts in the organization, and personal management. This demands the managerial paradigm shift because the neglect of the paradigm shift in the management means the failure of reform as a whole. The administrative skills 4.0 for the 21st-century dynamics include leadership, participation, coordination, facilitation, assessment, and technical development skills (Simerson, 2011). The organization also needs a good strategic plan, which presents the direction, vision, mission, and goals for the organization to adapt to changing environment and awareness of change to determine the direction and objectives of the concrete operation. (Weinstein, 2011) Personnel management 4.0 for the 21st century has been proposed by Jedaman. P. (2017) as an HRM framework for the success of the regional educational reform in Thailand. He mentioned that Personnel Management 4.0 presents important administrative and human skills (e.g., teamwork skills, motivation building skills, conflict management skills) for school administrators in managing educational personnel to work collaboratively and drive the school for success. The details of personnel Management 4.0 for the 21st century is presented in the result section.

Regional Educational Reform in Thailand

Thailand faces the serious and complex problem of education in regions about organizational structure regarding management systems and personnel for a long time. Such problems limit the quality of education that affects the HRD for the nation. Therefore, on 3 April 2017, the National Council for Peace and Order (NCPO) (2016) announced the order entitled “Regional educational reform under Ministry of Education” to solve the problems of education in regions in Thailand and support national educational reform. The key content of the regional educational reform is (No. 5) setting 18 Regional Education Offices throughout Thailand to be responsible for driving education at regional and provincial levels by supporting, encouraging, and developing education through collaboration and integration with other institutes under the Ministry of Education and/or other agencies or institutes. Regional educational reform is an emerging phenomenon for education in Thailand and there is a need to study personal management being appropriate to serve regional educational reform in Thailand. In this paper, personnel management 4.0 for the 21st century was employed as the framework for exploring the educational personnel’s perspectives on the regional educational reform in Thailand. The findings from this paper are expected to contribute, to some extent, to the current movement of educational reform in Thailand.

Methodology

The methodology of this study was mixed-method research, which combined both quantitative and qualitative methods. The quantitative method was survey research. Also, the qualitative method was interpretive research (Erickson, 1986), which emphasized the way that persons make sense of and give meaning to, the social interactions that constitute daily life in and around schooling (Gallagher, 1991).

Quantitative data collection: The survey research was conducted with educational personnel including cluster heads, directors of educational service area office, and school administrators from four regions in Thailand. The cluster sampling was used by using a region as a cluster. The sample of survey research was 599 school personnel from four regions. There were 92 (15.36%), 146 (24.37%) 151 (25.21%), and 210 (35.06%) school personnel from the Southern, Central, and Eastern, Northern, and Northeast regions, respectively. The quantitative data collection was needs assessment analysis by using a questionnaire of personnel management 4.0 for the 21st century. Key elements of personnel management 4.0 were: personnel management strategy, human resource, organization management, strategic planning and evaluation, leadership, and creativity.

Qualitative data collection: The qualitative data was collected from brainstorming about the problems and solutions for basic education regional education reform by using the personnel management 4.0 for the 21st century as a framework.



Data Analysis: The quantitative data were analyzed by descriptive statistical analysis including mean, standard deviation, modified priority needs index: PNI Modified, SWOT metrical, and F-test. In addition, the qualitative data were analyzed by thematic analysis.

Results

From qualitative data collection, the educational administrators reflected their perspectives regarding the problems and solutions of regional educational reform in Thailand according to personnel management 4.0 for the 21st-century framework as table 1.

Table 1:- Problems and solutions of regional educational reform in Thailand.

Personnel management 4.0 element	Problems	Solutions
Personnel management strategy	<ul style="list-style-type: none"> • A lack of unity in educational reform • Unclear roles, missions, operation and integration between educational units in the regions • The personnel management process is overlapped and redundant between the provincial and regional levels • Still, be centralized more than decentralized 	<ul style="list-style-type: none"> • Brainstorming from all educational units in the region • Creating the manual for personnel management process in the regional level to clarify roles, missions, operation and integration of each educational units • Use an open strategy for strategic planning and participation
Human resource	<ul style="list-style-type: none"> • Lack clear cooperation among educational units in the region • Lack of human resource policy 	<ul style="list-style-type: none"> • Create a strategic plan for educational units in the region • Create policy on HRM and HRD
Organization management	<ul style="list-style-type: none"> • Lack public awareness • Staff in organizations lack responsibility for assigned tasks 	<ul style="list-style-type: none"> • Promote staff's moral reinforcement • Monitor policy implementation • Increase public service
Strategic planning and evaluation	<ul style="list-style-type: none"> • Lack of planning and evaluation of strategic plan on personnel management • Budget allocation • Policy fluctuation 	<ul style="list-style-type: none"> • Monitor and evaluate personnel management and development regularly • Create a clear budget plan
Leadership and creativity	<ul style="list-style-type: none"> • Administrators lack participatory management, good governance, and professional management knowledge and experience • Lack of innovative practices and creation of more excellent practices 	<ul style="list-style-type: none"> • Develop administrators' knowledge and skills in participatory management, good governance, and professional management, professional leadership, capacity building, and assessment • Encourage personnel for more creative and innovative ideas in educational practice

The needs assessment conducted with the sample showed interesting results regarding personnel management 4.0 for the 21st century for regional educational reform in Thailand. The results are divided into two parts: internal assessment and external assessment. Figure 1 showed the needs assessment analysis through an internal environment of personnel management 4.0 framework under regional educational reform.

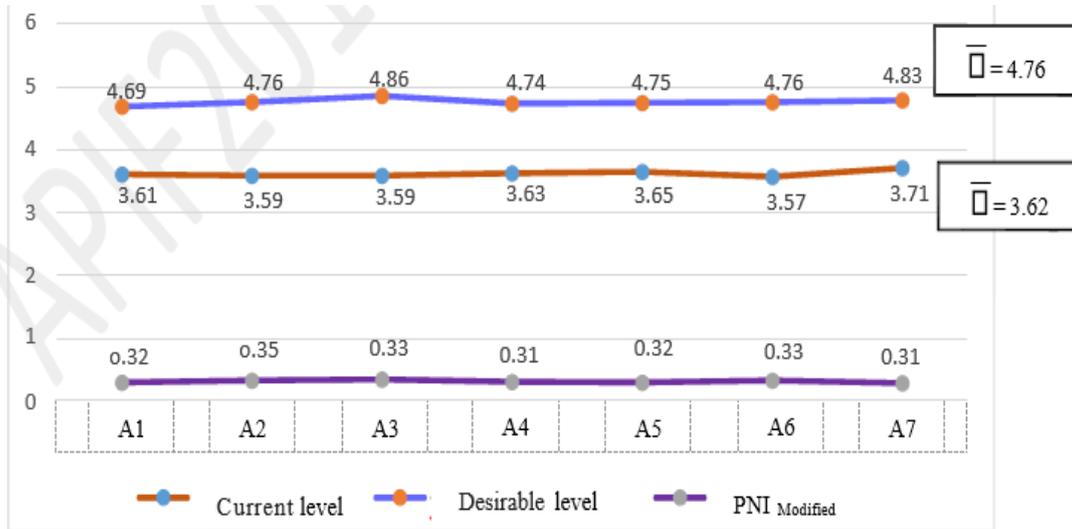


Figure 1:- Needs assessment from the internal environment

Note:- A1: Implementation planning, A2: Organizational planning leadership, A3: Focusing on personnel and actions, A4: Focusing on organization, A5: Outcome evaluation, A6: Strategic planning, A7: Measurement and knowledge management. Figure 1 showed that the highest mean through internal environment was A3: focusing on personnel and actions and the lowest mean was A1: implementation planning. The highest need aspect was A2: organizational planning leadership and the lowest need aspect was A4: focusing on organization and A7: measurement and knowledge management. In addition, Figure 2 shows the needs assessment analysis through the external environment of the personnel management 4.0 framework under regional educational reform.

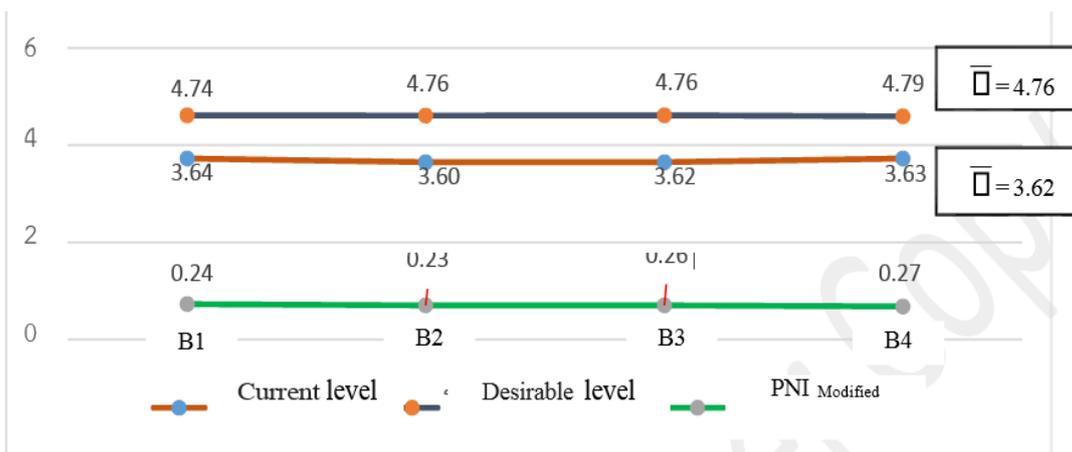


Figure 2:- Needs assessment from the external environment

Note:- B1: Public policy, B2: Technology, B3: Economy, B4: Society. Figure 2 showed that the highest mean through external environment was B4: Society and the lowest mean was B1: Public policy. The highest need aspect was B4: Society and the lowest need aspect was B2: Technology. The SWOT technique was also used to analyze data. Table 2 showed strengths and weaknesses of regional



educational reform under personnel management 4.0 framework regarding plan implementation, organizational plan leadership, focusing on personnel and actions, focusing on organization, outcome assessment, strategic planning and measurement, and knowledge management.

Table 2:- SWOT analysis of regional educational reform.

Strengths	Weakness
<p>Organizational Plan Leadership</p> <ul style="list-style-type: none"> - Expected configuration to achieve success (PNI Modified=.15) <p>Focusing on Personnel and Actions</p> <ul style="list-style-type: none"> - Development and strengthening of personnel relations (PNI Modified=.25) <p>Measurement and Knowledge Management</p> <ul style="list-style-type: none"> - Continuously to promote knowledge management (PNI Modified=.27) 	<p>Strategic planning</p> <ul style="list-style-type: none"> - Communicate and convey strategies to personnel clearly (PNI Modified=.39) - Indicate indicators of success in every level of operation (PNI Modified=.35) - Planning is based on information linked to the problem (PNI Modified=.34) - Evaluate progress, performance and compare to goals (PNI Modified=.32) - Performance appraisal to good governance and real practices (PNI Modified=.30) - Define clear strategic objectives (PNI Modified=.34) <p>Plan Implementation</p> <ul style="list-style-type: none"> - Implement short- and long-term measures to prevent possible mistakes (PNI Modified=.39) - Creativity for the cooperation of networks (PNI Modified=.38) <p>Focusing on Organization</p> <ul style="list-style-type: none"> - Commit to be a valuable leader (PNI Modified=.36) - Create a clear image of future success (PNI Modified=.31) <p>Outcome assessment</p> <ul style="list-style-type: none"> - Evaluate progress, performance and compare to goals (PNI Modified=.32) - Performance appraisal to good governance and real practices (PNI Modified=.30)

In addition, the educational administrators' perspectives on regional educational reform under the personnel management 4.0 framework were compared and the result was shown, in table 3.

Table 3:- Relationship of educational administrators'

Variable	Relationship	
	Personnel management 4.0	Perspective
Personnel management 4.0 framework	-	.79**
Educational administrator perspective	.79**	-

Note ** Means statistically significance with $p < .01$.

The educational administrators' perspectives on regional educational reform were significantly correlated ($r = .79$) to the personnel management 4.0 framework at the .01 statistical level.

Discussion

One trend of the 21st century is the change of organizational structures/work patterns (Tan, 1997) as being occurred with the establishment of regional educational offices throughout Thailand at present. The regional educational reform also shows the 'State-led development' initiated by the state rather than the public (Rowley & Warner, 2007). This study shows several issues and concerns regarding regional educational reform from the educational administrators' perspectives. The weaknesses found in this study include Clear communication about strategies, Provision of clear success indicators, Problem-based planning, Provision of clear strategic objectives, Implementation of short- and long-term measurement, Enhancing creativity for network cooperation, Educational administrators' commitment, Provision of clear success image, Evaluation of progress and performance concerning goals, and Appraisal for good governance and practices. Because the regional educational reform



(National Council for Peace and Order (NCPO), 2016) is a new structure, system, and organization for education in Thailand, the promotion of organizational culture should be paid more attention as a key success factor (Phangthai, 2016; Pothongsangarun, 2016; Tatte, 2015) or the cultivation of new paradigm in an organization (Phangthai, 2016). New organization leads to many conflicts in the organization, so educational administrators need the skills in conflict management (Tatte, 2015) and/or diversity management (Suthamdee & Suthamdee, 2017). Educational leaders should be sensitive and aware of the dynamic of contextual change (Suthamdee & Suthamdee, 2017). Educational administrators should have a vision and the ability to motivate, inspire staff in an organization (Sarnrattana, 2014; Tatte, 2015). They should cultivate change and build the future with their staff (Sarnrattana, 2014) and specify the clear career or progress path regarding duty, work, period, skill for them (Pothongsangarun, 2016). Decentralization is one key idea of regional educational reform. Its implementation may be difficult because people still be accustomed to centralization. In doing so, the leaders should decentralize of human resource concept (Lipiec, 2001) empower staff, and distribute power horizontally (Sarnrattana, 2014). The regional educational reform asks for more innovative and creative thinking for all involved parties. Plenjit (2015) found that educational administrators reflected their low level of creativity and self-confidence in creative and innovative thinking. In this case, the educational administrators should be initiatives (Sarnrattana, 2014) and look for and promote innovation in the organization (Tatte, 2015). Educational administrators should promote the personnel's change of thinking process to be more innovative thinking, creative thinking. (Tantrajin et al., 2016) New organization comes with new roles and duties that may demand new knowledge, skills, and competencies. Thus, educational administrators should promote education and training (Lipiec, 2001). One type of training is personal self-development as on-the-job training (Junprasit, 2016) or authentic workplace learning (Suthamdee & Suthamdee, 2017). The personnel management 4.0 for the 21st century (Jedaman, 2015, 2017) proposed a key framework when thinking about HRM and HRD in regional educational reform in Thailand. The findings from this study may contribute, to some extent, to the process of regional educational reform in Thailand. The involved agencies with regional educational reform as the Office of the Basic Education Commission can utilize the weaknesses presented in this study as one alternative source of information for planning policy and practice to promote the better process of regional educational reform. The weaknesses found in this study should be concerned is Clear communication about strategies to personnel, Provision of clear success indicators in every level of operation, Problem-based planning, Provision of clear strategic objectives, Implementation of short- and long-term measures to prevent possible mistakes, Enhancing creativity for the cooperation of networks, Administrators' commitment to being valuable leader, Provision of a clear image of future success, Evaluation of progress and performance concerning goals, and Performance appraisal to good governance and real practices.

Conclusion

Regional educational reform in Thailand for needs assessment and personnel management 4.0 for the 21st Century where the needs assessment showed that the internal and external environment was at a high level and the desired condition was at a very high level. The participants showed high needs regarding organizational plan leadership and strategic planning, measurement and knowledge management, and focusing on organization. Also, the relationship among educational administrators' perspectives on regional educational reform under the personnel management 4.0 framework was statistically significant at the .01 level. Educational administrators should have vision and ability to motivate, inspire staff in the organization to cultivate change and build a future with their staff and specify the clear career or progress path regarding duty, work, period, skill for them. Decentralization is one key idea of regional educational reform. Its implementation may be difficult because people still be accustomed to centralization. In doing so, the leaders should decentralize of human resource concept empower staff, and distribute power horizontally. The regional educational reform asks for more



innovative and creative thinking for all involved parties. Educational administrators should promote the personnel's change of thinking process to be more innovative thinking, creative thinking. New organization comes with new roles and duties that may demand new knowledge, skills, and competencies. Thus, educational administrators should promote education and training. One type of training is personal self-development as on-the-job training. The personnel management 4.0 for the 21st century (Jedaman, 2015, 2017) proposed a key framework when thinking about HRM and HRD in regional educational reform in Thailand.

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