

# Guidelines for Innovative Leadership Development of Private Vocational College Administrators in the Northeastern Region

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## Abstract

Innovative leadership development can assist administrators of private vocational colleges in identifying and capitalizing on new opportunities within the educational administration network by fostering creative thinking and openness to new ideas. Such administrators can discover novel approaches to efficiently and effectively address the needs of students, faculty members, and stakeholders. Therefore, the research objectives are as follows: to examine the components and indicators of innovative leadership among administrators of private vocational colleges in the northeastern region, to assess the consistency of the innovative leadership measurement model, and to develop guidelines based on the study findings for implementation. To develop the innovative leadership of private vocational college administrators, a mixed-method research approach was employed, consisting of four phases. The collected data were analyzed using descriptive statistics and statistical packages for further reference. The results revealed that Innovative Leadership comprises five main components and fifteen indicators. These indicators were found to be appropriate based on the specified criteria. The developed measurement model for innovative leadership indicators demonstrated consistency with the empirical data, with statistically significant values (P-value = 0.73, RMSEA = 0.023, SRMR = 0.019, CFI = 1.00, TLI = 1.00). Furthermore, all main components exhibited factor loadings higher than the criterion of 0.70, while sub-components and indicators displayed factor loadings higher than the criterion of 0.30. Finally, the implementation of the guidelines yielded positive results, as they were deemed suitable, feasible, and highly beneficial across all aspects.

**Keywords:** innovative leadership, leadership development guidelines, indicators development, private vocational colleges

## 1. Introduction

### 1.1 Background and Significance of the Problem

The Ministry of Education Office of the Vocational Education Commission has established policies and priorities aimed at fostering excellence and specialization in colleges, thereby enhancing the nation's human capital potential through reskilling, upskilling, and new skills development (Re-Skills, Up-Skills, NW-Skills). Additionally, there is a focus on strengthening collaboration and expanding the role of the private sector in intensive education management. This includes addressing the country's needs by developing diverse learning materials (on-site, on-air, online, on-demand) and equipping learners with 21st-century skills such as professional competencies, English/Chinese fluency, and digital literacy. Moreover, efforts are being made to improve the quality of vocational education management, implementing digital systems as tools to rebrand vocational education. The Ministry is open to recruiting teachers and experts from various sectors to meet the demands of vocational manpower production and development, and it encourages their active involvement in private sector vocational education management (Suthep Kaeng Santhia, 2020).

In the context of managing an innovative organization, an administrator with innovative leadership plays a crucial role in enhancing education management efficiency and effectiveness across all dimensions. Such an administrator drives the innovation strategy towards the desired goals, possessing unique and superior skills associated with innovative leadership. This leadership style involves a distinct mindset and the ability to generate innovation, serving

as a leader in promoting new ideas, methods, techniques, processes, products, services, and problem-solving approaches in a dynamic operational environment. This approach is responsive to present and future needs (Horth and Buchner, 2009) and fosters the creation of an organizational culture that embraces and supports innovation. By cultivating an environment that encourages collaboration and stimulates the imagination of personnel, thought leaders can emerge within the organization. Additionally, the administrator can create new, more efficient factors of production, setting the organization apart from its competitors (Volk, 2012).

Innovative leadership development is crucial for private vocational college administrators because it can help them to adapt to the constantly changing environment of the education sector. Private vocational colleges face unique challenges that require innovative thinking and strategic decision-making to overcome. Developing innovative leadership skills can help administrators to find new ways to improve the quality of education, increase student enrollment, and optimize the college's financial resources. Innovative leadership development can help private vocational college administrators to stay ahead of the competition. As the education sector becomes more competitive, institutions must find new ways to differentiate themselves from their competitors. By developing innovative leadership skills, administrators can stay ahead of the curve and position their institutions for long-term success. In summary, innovative leadership development is critical for private vocational college administrators because it can help them to adapt to a constantly changing environment, identify and capitalize on new opportunities, build strong relationships with stakeholders, and stay ahead of the competition.

Therefore, the researcher is interested in studying the Development of Indicators and Guidelines for Innovative Leadership Development of Administrators of Private Vocational Colleges in the Northeastern Region. It is a study from theory to measurement modeling where researchers can verify the consistency of innovative leadership measurement models developed from theory and research with empirical data. And by examining the quality of the indicators from experts and stakeholders, including using the research results to create innovative leadership development guidelines to be used as a guideline for planning for executive development in line with current conditions, which will help promote the efficiency and effectiveness of executive performance in the future.

### *1.2 Conceptual Framework*

After reviewing 11 relevant literature sources, including Woi (2013), John (2006), Ailin and Lindgren (2008), Horth and Buchner (2009), New and Improved (2009), Dyer, Hal and Clayton (2011), Gates (2012), Sena and Erena (2012), Vlok (2012), Zhang (2012), and Phisitwat Klinthaisong (2016), it was observed that there are multiple components of innovative leadership. In total, 17 components were identified; however, for the purpose of this research, the researcher employed a criterion based on the frequency with which components were identified by a majority of researchers as being integral to innovative leadership at a high level (60 percent or more). These components were then utilized as a conceptual framework for the research, resulting in five elements:

Innovative Vision, which comprises the following indicators:

- a) Creating a vision
- b) Dissemination of the vision
- c) Implementation of the vision

Courage to take risks with innovation, including the following indicators:

- a) Being challenging
- b) Being responsible
- c) Having a new initiative

Innovation networking, which consists of the following indicators:

- a) Exchange interaction
- b) Participation of network members
- c) Membership of the network

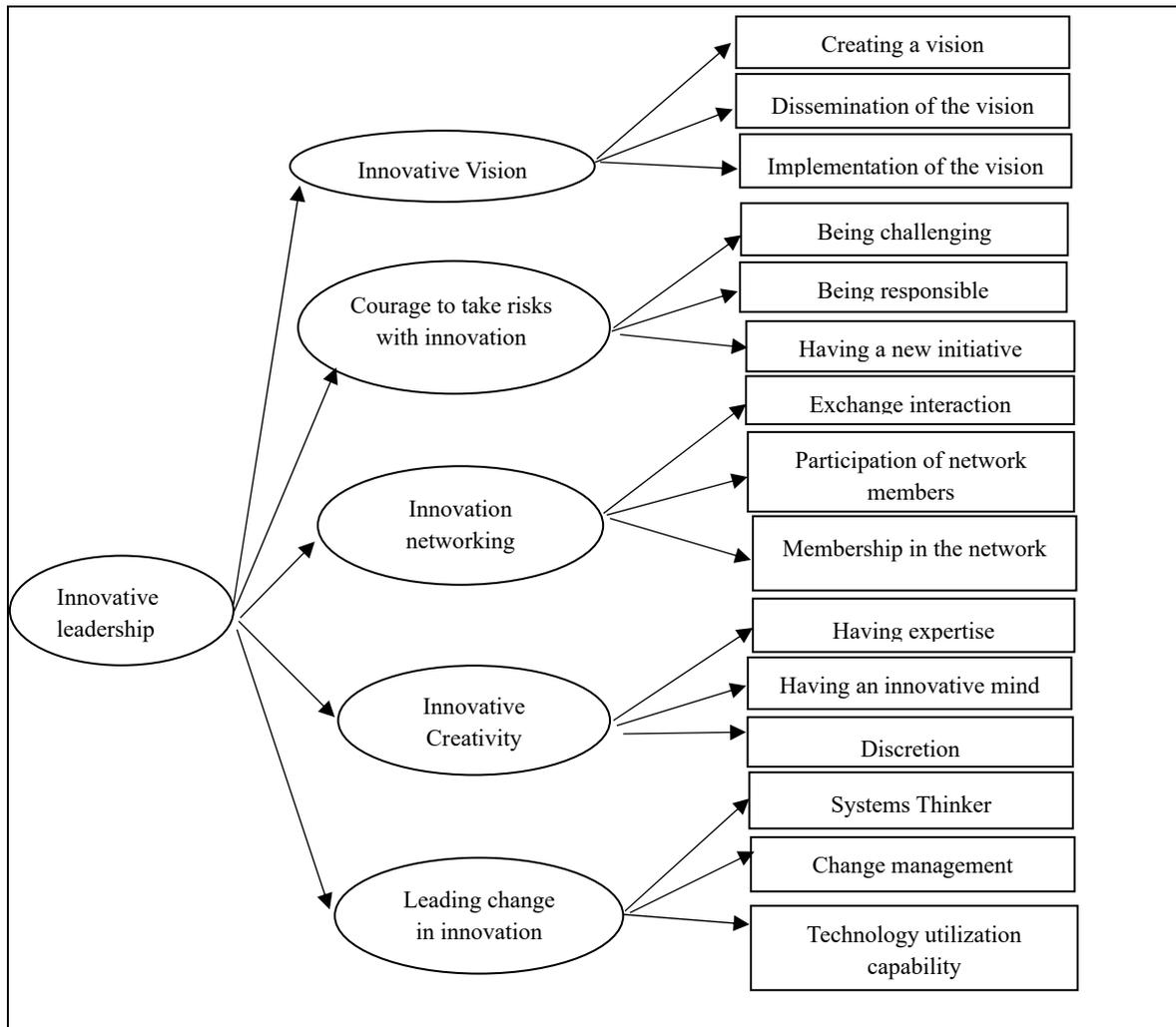
Innovative Creativity, encompassing the following indicators:

- a) Having expertise
- b) Having an innovative mind
- c) Discretion

Leading change in innovation, which involves the following indicators:

- a) Systems Thinker
- b) Change management
- c) Technology utilization capability

These elements and their respective indicators are illustrated in Figure 1.



**Figure 1.** Conceptual Framework

*1.3 The Research Objectives Are as Follows:*

- Investigate the components and indicators of innovative leadership among administrators of private vocational colleges in the northeastern region.
- Assess the consistency of the measurement model for innovative leadership among administrators of private vocational colleges in the northeastern region.
- Develop guidelines for the development of innovative leadership among administrators of private vocational colleges in the northeastern region.
- Examine the results of implementing the guidelines for the development of innovative leadership among administrators of private vocational colleges in the northeastern region.

## 2. Research Methodology

The first phase involves studying the components and indicators of innovative leadership among administrators of private vocational colleges in the northeastern region. Qualitative data will be gathered through semi-structured interviews conducted with seven experts. The aim is to assess the validity and appropriateness of the variables. The collected data will be analyzed using Content Analysis.

In the second phase, the consistency of the measurement model for innovative leadership among administrators of private vocational colleges in the northeastern region will be tested. Quantitative data will be collected and analyzed using advanced statistical methods. The sample will consist of teachers and administrators from 93 private vocational colleges in the region, selected randomly from 50% of the total population based on the ratio criteria between sample units and the number of parameters or variables in the factor analysis. (Factor Analysis) as described by Hair et al. (2010). Typically, a sample ratio of 20:1 is used for the parameters being studied. In this research, as there are 20 parameters, a total of 400 participants will be selected through stratified random sampling. Online questionnaires will be employed to collect the data. Confirmatory factor analysis will be conducted to test the component structure relationship model and determine the weights of the sub-variables used to generate the indicators. This analysis will be based on empirical data derived from the questionnaire, and it will assess the consistency of the research model. A theoretical model created by the researcher will be analyzed using second-order confirmatory factor analysis with empirical data.

The third phase involves developing guidelines for the development of innovative leadership among administrators of private vocational colleges in the northeastern region. Qualitative data will be collected through focus group discussions with experts. These discussions will explore the suitability, possibilities, and usefulness of leadership development approaches.

The final phase focuses on studying the results of implementing the innovative leadership development guidelines among administrators of private vocational colleges in the northeastern region. Qualitative data will be collected from the outcomes of applying the guidelines, which will be adapted to the interested and willing private vocational colleges. The content of these results will be analyzed based on key elements.

## 3. Research Results

Components and indicators of innovative leadership among private vocational college administrators are as follows:

Innovative Vision:

- Creating a vision

- Dissemination of the vision

- Implementation of the vision

Courage to take risks with innovation:

- Being challenging

- Being responsible

- Having a new initiative

Innovation networking:

- Membership of the network

- Participation of network members

- Exchange interaction

Innovative creativity:

- Having expertise

- Having an innovative mind

- Discretion

Leading change in innovation:

- Systems thinker

## Change management

## Technology utilization capability

The results of the confirmatory factor analysis on innovative leadership factors among administrators of private vocational colleges in the northeastern region revealed the following details:

**Innovative Vision:** The component with the highest factor loading was the implementation of the vision (Factor Loading = 0.85, Forecasting coefficient = 0.73). The component with a factor loading of 0.78 and a forecasting coefficient of 0.62 was dissemination of the vision. The component with the lowest factor loading was vision creation (Factor Loading = 0.74, Forecasting coefficient = 0.55).

**Courage to take risks with innovation:** The factors with high factor loadings included having a new initiative (Factor Loading = 0.77, Forecasting coefficient = 0.60). The factor loading was 0.75 with a forecasting coefficient of 0.56. The component with the lowest factor loading was courage (Factor Loading = 0.69, Forecasting coefficient = 0.48).

**Innovation networking:** The component with the highest factor loading was membership of the network (Factor Loading = 0.80, Forecasting coefficient = 0.64). The component with a factor loading of 0.785 had a forecasting coefficient of 0.61. The component with the lowest factor loading was exchange interaction (Factor Loading = 0.78, Forecasting coefficient = 0.60).

**Innovative Creativity:** The component with the highest factor loading was innovation imagination (Factor Loading = 0.81, Forecasting coefficient = 0.66). Followed by expertise (Factor Loading = 0.80, Forecasting coefficient = 0.64). The component with the lowest factor loading was judgment (Factor Loading = 0.80, Forecasting coefficient = 0.64).

**Leading change in innovation:** The component with the highest factor loading was the ability to use technology (Factor Loading = 0.83, Forecasting coefficient = 0.70). Systems thinker had a factor loading of 0.82 and a forecasting coefficient of 0.68. The component with the lowest factor loading was factor loading (Factor Loading = 0.79, Forecasting coefficient = 0.63), as shown in Table 1.

**Table 1.** Presents the Results of the Confirmatory Factor Analysis for the Key Components of Innovative Leadership among Administrators of Private Vocational Colleges in the Northeastern Region

components	factor loading			forecasting coefficient (R <sup>2</sup> )#
	$\beta$	S.E.	t	
1. Innovative vision				
1.1 Creating a vision	0.746	0.029	25.656	0.557
1.2 Dissemination of the vision	0.789	0.028	27.889	0.623
1.3 Implementation of the vision	0.854	0.035	24.131	0.730
2. Courage to take risks with innovation				
2.1 Being challenging	0.693	0.031	22.037	0.480
2.2 Being responsible	0.754	0.028	27.352	0.569
2.3 Having a new initiative	0.777	0.025	31.312	0.604
3. Innovation networking				
3.1 Membership of the network	0.785	0.023	33.443	0.616
3.2 Participation of network members	0.804	0.023	34.980	0.647
3.3 Exchange interaction	0.780	0.024	32.024	0.609
4. Innovative creativity				
4.1 Having expertise	0.805#	0.021#	38.014	0.647
4.2 Having an innovative mind	0.814#	0.021#	39.521	0.663
4.3 Discretion	0.800#	0.019#	41.300	0.640
5. Leading change in innovation				
5.1 Systems Thinker	0.827#	0.024#	33.927	0.683
5.2 Change management	0.796#	0.023#	35.047	0.634
5.3 Technology utilization capability	0.837#	0.023#	35.883	0.700

The results of implementing an innovative leadership development guidelines for administrators of private vocational colleges in the northeastern region can be summarized as follows.

- Innovative vision 1) Creating a vision, the performance of the college is practiced by administrators to promote the vision for teachers and personnel by organizing various activities to develop and provide professional skills and knowledge. 2) Dissemination of the vision, the performance practiced by administrators gives opportunities for teachers and personnel to jointly design concepts for educational institute development. 3) Implementation of the vision, the performance is practiced by Management assigning tasks to personnel. Connect with college goals responding to student needs community establishment#
- Courage to take risks in innovation 1) Being challenging, the performance of the college is practiced by the administrators having clear goals in their work. Then there is a work plan for solving problems and summarizing work within that plan. 2) Being responsible, the performance of the college is practiced by the administrators with diligence. And be patient with obstacles, and follow up on work performance to improve consistently. 3) Having a new initiative, the performance of the college is practiced by executives with ideas. Dare to always bring new things and take action to improve the college
- Innovation networking 1) Membership of the network is practiced by the executives setting up a committee. network coordinator cooperation in various fields 2) Participation of network members, the performance of the College is practiced by administrators, promoting and providing opportunities for teachers and personnel to attend training in new skills and knowledge and to promote development in various fields. 3) Exchange interactions, the performance of the College is practiced by the administrators to develop knowledge and competence with various organizations both domestic and international.
- Innovative Creativity 1) Having expertise, the performance of the College is practiced by the administrators to encourage teachers and personnel to develop knowledge and skills according to the line of work of teachers and personnel. And able to solve problems that arise during work. 2) Having an innovative mind, the performance of the college is practiced by the administrators with the concept of knowledge development. Professional skills consistently by setting guidelines for the possibility of developing knowledge. 3) Discretion, the performance of the college is practiced by the administrators to apply knowledge. Ability to manage tasks through systematic problem-solving based on statistics
- Leading change in innovation 1) Systems Thinker, College performance is practiced by Executives systematically inculcate concepts. Thinking systematically, there is an operational plan for PDCA Model. 2) Change management. There is the practice by executives to manage problems that arise effectively. However, the principle of flexibility must be taken into account, adjusting a positive attitude, not coercion. 3) Technology utilization capability, the performance It is practiced by executives to plan information technology development and create modern and efficient communication channels.

#### 4. Discussion of Research Results

The results of the development of innovative leadership indicators of administrators of private vocational colleges in the northeastern region found that the indicator model created by the researcher was statistically significant for all indicators, indicating that the elements discovered are critical components of innovative leadership. This is due to the development of the indicators in this study, the researcher used the empirical definition method. Which is a definition that is close to the theoretical definition that the researcher has determined which sub-variables the indicator consists of and set the format Methods for combining variables to obtain indicators using research theory as the basis. Therefore, the generated indicator model is more accurate. Consistent with empirical data (Nonglak Wiratchai, Sajeemas Na Wichien, and Pisamai Orathai, 2008).

The results of testing the consistency of the innovative leadership indicator measurement model of administrators of private vocational colleges in the northeastern region with empirical data showed that are consistent with the empirical data as follows:

1) Innovative vision was found that the indicator with the highest component weight was the implementation of the vision. Demonstrating the fulfillment of the vision is putting the created vision into action by setting goals, plans, and activities. That is in line with the vision by promoting and supporting teachers and educational personnel to participate in the implementation of the set vision. And for the created vision to be effective, it must be monitored. This is in line with Samut Phuapsuwan (2013) who said that following a vision is an expression of executives to bring the created vision into practice. by targeting plans and activities in line with the vision through the participation of members in the organization for the established vision to be accomplished, follow-up audits are required. Vision compliance indicators include: setting goals, plans and activities, engagement, and monitoring and tracking.

2) Courage to take risks with innovation found that the indicator with the highest component weight was initiative. Shows that originality is an expression of new ideas that are different and creative. Dare to improve new ways of working to increase work efficiency. There is a development of a new work system. And accept both positive and negative impacts arising from the new way of working, in line with Promboon Panitchpakdi (2007). He mentioned creative thinking as thinking outside the box that we are used to, or thinking out of the box. Thinkers must be open-minded to choices and new opportunities. Although it may seem risky or requires investment to achieve new learning creativity or innovation and not caused by a momentary thought that accidentally entered the brain. It comes from the process of thinking, observing, analyzing, and synthesizing. It is also said that fostering initiatives at work is the mission of modern executives. There are several ways to create an atmosphere in the team that is conducive to the initiative: 1) Promote thinking beyond traditional boundaries. Combine a variety of ideas. 2) Changing perspectives from the original. Look for alternatives from new perspectives. 3) Research. Research designed to test new ideas or to understand the essence of how to think about solving problems and lead to new alternatives.

3) Innovation networking found that the indicator with the highest factor loading was the participation of network members. Demonstrate that participation is an activity that produces groups and teamwork. For exchange, support, interdependence, activities, or production between groups or institutions. There is contact and support for the exchange of information and news. And voluntary cooperation Incentivize a person or group to come and help. or support to make benefits in various matters Participation in any activity at any level may be participation in the decision-making process or participation in the administrative process voluntarily. Enthusiasm, and earnestness, to push for the achievement of the set goals, in line with Thawilvadee Burikul (2005) has explained the meaning of participation in many dimensions. Which can be summarized as follows: #

1) Participation is considering the voluntary contribution of an individual or group to any project. Which are various public projects which are expected to affect the development of the nation without changing the project or criticizing the content of the project.#

2) Participation in a broad sense means giving rural people feel alert to know how to receive help and respond to development projects. And at the same time support the initiatives of local people.#

3) In the field of rural development. Participation is the involvement of the public in the decision-making process. Process project evaluation process and jointly receive benefits from that development project.

4) Innovative Creativity it was found that the indicator with the highest component weight was innovative imagination. It shows that having an innovative mind is an idea, the ability to set clear goals for innovation development. The pursuit of new ideas to achieve the goals and take those ideas to be evaluated. Selection for the best method and the implementation of the concepts that have been put into action plans, consistent with Wanich Sutharat (2004) explained that innovative thinking means the capacity of the human brain that arises from bringing knowledge, information, news, and experiences. to be integrated by creating a new form of Imagination, therefore, arises in the form of a combination of ideas from both fields of science, that is, scientific creativity. And the arts as appearing as works of literature, art, science, ethics, etc.

5) Lead innovation change It was found that the indicators with the highest component weight were: Technology capability It shows that the ability to plan technology is an important component of executives in administration and is used in communication and access to information service sources. to be systematically used in school management Including the ability to digitize school information systems, consistent with Suriya Madthing (2014) explained that competency in using information technology means having knowledge and the ability to access information. Information management information integration information assessment information creation and the use of information to communicate to bring to work.

In conclusion, the implementation of innovative leadership development guidelines for administrators of private vocational colleges in the northeastern region has resulted in the following outcomes:

- Innovative Vision: Administrators have successfully created, disseminated, and implemented a vision for the educational institute. They engage teachers and personnel in promoting the vision, provide opportunities for professional development, and align tasks with college goals and student/community needs.

- Courage to take risks in innovation: Administrators exhibit a challenging and responsible approach to innovation. They set clear goals, create work plans, evaluate progress, and demonstrate diligence and patience in overcoming obstacles. They also bring new ideas and take action to enhance the college's development.

- Innovation networking: Administrators establish committees and facilitate cooperation within various fields. They promote training opportunities and foster development for teachers and personnel in diverse areas. They also engage

with domestic and international organizations to enhance knowledge and competence.

- Innovative Creativity: Administrators encourage the development of knowledge and skills among teachers and personnel, enabling effective problem-solving. They emphasize knowledge expansion and apply their expertise through systematic problem-solving based on statistical analysis.

- Leading change in innovation: Administrators systematically instill conceptual thinking and employ operational plans following the PDCA (Plan-Do-Check-Act) model. They effectively manage arising problems with flexibility and foster a positive attitude instead of coercion. They also plan the development of information technology and establish modern and efficient communication channels.

Overall, the implementation of these innovative leadership development guidelines has led to a culture of innovation, improved collaboration, professional growth, effective problem-solving, and positive change management within private vocational colleges in the northeastern region.

## 5. Suggestion

From the research results, there are suggestions for applying the research results and recommendations for further research as follows:

1) Suggestions for applying research results, the results of the development of innovative leadership indicators of administrators of private vocational colleges in the region

Northeast executives can apply for self-improvement planning and educational personnel.

in order of importance as follows: 1) Innovative Vision, Administrators develop a leadership team to jointly determine the workload of personnel in connection with the college vision's goal values to encourage personnel to have a sense of empathy. And willing to work to achieve vision and supervision Evaluate performance according to criteria and goals within the specified period.

2) Courage to take risks with innovation, Administrators place importance on thinking outside the box and daring to present. New ideas to develop or improve new ways of working, seeking new ways of working that produce better results and drive change.

3) Innovation networking, Administrators should have a plan for conducting exchange activities. Systematic and continuous learning creates channels for information exchange or collaboration through the network and organized study visits to external educational institutions to open up the world.

4) Innovative Creativity, Administrators should seek new ideas or perspectives from a variety of information sources and use the research process to find new things or new methods used in job development. 5) Leading change in innovation. Administrators should plan the future of information technology of the college where possible and establish a communication channel between teachers' parent student through the internet network and know the sources of information services and know how to access information resources.

## 6. Suggestions for further Research

- There is a need for research and development on innovative leadership among administrators of private vocational colleges to enhance the management model and educational innovation as a source and model of learning.

- Policy research should be conducted to establish guidelines and provide direction for innovative leadership among administrators of private vocational colleges, serving as a national and international reference point.

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