EDUCATIONAL ADMINISTRATION FOR WORK-BASED EDUCATION AT PANYAPIWAT INSTITUTE OF MANAGEMENT

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Abstract

Panyapiwat Institute of Management (PIM) is a Thai private higher education institution that has been able to grow rapidly within just 15 years through its educational administration approach for work-based education. The research's purpose was to study the success factors of management system based on Panyapiwat Institute of Management's Work-based Education (WBE) Experiences. The sample consisted of 217 participants at the manager level and above at PIM. Data were analyzed using correlation statistics, multiple regression analysis, and multiple linear regression analysis by Enter method to test 4 hypotheses. The findings indicate in the same way, all of the following: (1) the strategic performance management towards WBE; (2) Build People Passion is the management and building trust in the WBE; (3) the curriculum redesign; and (4) work process & style redesign towards WBE. All of them positively influence the outcomes of PIM's WBE operation.

The predicting equation in raw score form is as follow:

$Y' = 0.634 + 0.125 (X_1) + 0.122 (X_2) + 0.129 (X_3) + 0.599 (X_4)$

X_1 = Strategic performance management

X_2 = Build People Passion

X_3 = The curriculum redesign

X_4 = Work process & style redesign

The four success factors found in this equation can be applied to other similar educational institutions with a similar context.

Keywords: Worked-based Education (WBE), Work-based Learning, Panyapiwat Institute of Management (PIM), Management System for Work-based Learning

Introduction

The global context of higher education institutions or universities around the world is affected by the change of learners, service recipients, technology, and severe social needs. Deloitte (2021) suggests that future higher education institutions need to make six major adjustments. First, create a new

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marketing approach to attract the attention of specialized lifelong learning learners. Second, instructors must manage teaching and learning to suit individual differences. Third, create a good physical and virtual experience for learners. Fourth, must be a SMART Campus because of the COVID-19 crisis. Fifth, to find the teaching content that must be both technical knowledge and social skills. Sixth, respond to ecosystem, higher education institutions must be closely responding to society and the business sectors by bringing knowledge and research results into practice. Rowe et al. (2018) found that 89% of employers said that graduates are not ready to work, therefore higher education institutions need to develop learners with skills and abilities that makes graduate more likely gain more employment, this should be able to solve the problem of graduates not being ready to work.

For Thailand, the crisis of higher education institutions now, it's also extremely severe. The major challenges arise from 3 issues (Suwansawat, 2021): First, Thailand's birth-rate has been low for many years in a row, causing the number of students to decrease. Second, the interest of learners in the higher education system is dwindling. Third, technology from around the world has come into teaching and learning to take the place of higher education institutions, coupled with the COVID-19 outbreak, it has resulted in economic, social, and the public health changes, especially education. As it turns out, higher education institutions

have done many things that has never been done before, such as organizing online teaching and learning; use other technologies to make online teaching more interesting, such as Augmented Reality (AR), Virtual Reality (VR) and other simulations for better interaction during teaching. However, adaptation of higher education institutions to respond to surrounding context and increasing employability remains the greatest challenge ever. Until the Ministry of Higher Education has encouraged higher education institutions adopt the Cooperative and Work Integrated Education (CWIE) system (Phawawimol, 2021), but the results have not yet been expanded widely.

An important adaptation of higher education institutions around the world and Thailand is the development of learning styles that are in tandem with actual practice. This may be called Work Integrated Learning (WIL), Work-based Learning (Suthamanon & Boonyasrirat, 2021), or in Thailand use Cooperative and Work Integrated Education (CWIE) or Work-based Education, which will next presentation. Panyapiwat Institute of Management (PIM) has founders with experience as business executives who understand the workforce needs of the business sector and has been applied Work-based Education as a system that supports and inspires students' growth through a combination of classroom and workplace training. PIM's students will undergo internship and classroom learning consecutively and continuously from the first year until graduation.

Objective

The objective was to study the success factors of Work-based Learning of Panyapiwat Institute of Management. The scope of this study was the key success factors in management system that are learned from work-based education by Panyapiwat Institute of Management.

Literature Review

Educational environment is calling for academics with greater accountability, as well as develop teaching materials for learners to learn from real-life work experiences and adjusting how they operate and engaging in more new ways than ever before. These trends are listed below.

1. Adjustments and trends in higher education administration.

A study by Stace (2021) found that higher education institutes will adjust the direction of management methods, which are:

1) Teaching and learning in small information called Nanolearning. It reduces the time spent studying and does not require a lot of space and resources. The essence is to propose methods of knowledge and skills required to work solution to meet the needs of the learners.

2) Use of virtual technology to help in learning in the classroom, whether it is Virtual Reality (VR) or Augmented Reality (AR), giving learners a virtual experience, instead of having to go to field trips. Learners could try virtual careers, learning high-technology and the use of different languages, etc.

3) Project-based learning of 4-5 people helps develop learners' thinking skills as well as collaborative working are important skills for the 21st Century skill.

4) Experiential learning is learning from the real world of real situations, or in some cases, technology is used to help in teaching and learning.

5) Online learning provides learners to learn whenever and wherever the learners want.

However, in the case of corporate universities, most of which are educational institutions or personnel development established to develop personnel in the ecosystem of that business, there will be more special effects (Dogan & Acar, 2020).

1) Changes in business and customers has forced corporate university not only to reduce the time and cost of human development but also need to modify the program faster and manage to be ready to complete the learning on its own.

2) Technological advancement makes the corporate university use it for more learning management.

3) Short-term programs make it possible to reduce the use of learning spaces.

4) Learning must meet the demands of being able to use it when it is needed, therefore learning management must be very flexible.

5) Learning must be useful, so it must measure tangible results.

6) Manpower needs to learn big things all the time, so learning is inseparable from work.

7) The learning model is the same across the organization.

7.1 Formal learning, such as in the classroom, E-learning Forum, performance reviews, etc.

7.2 Informal learning, such as having a mentor (mentor), coaching (coach) or shadowing, etc.

7.3 Social learning, such as WIKI, VDO, discussion, user-generated content.

2. The international Higher education trend aims to develop teaching from real-life work experiences.

Teaching that can respond to the university ecosystem context and there are a variety of proponents of increasing employment capacity. One of the most discussed formats is Work Integrated Learning (WIL), it is a model of teaching at the higher education level that is collaboration of three stakeholders which are higher education institutions, learners, and workplace for mutual benefits (Cooper et al., 2010):

1) Recruitment and selection of competent personnel in the future of work-place.

2) It is an investment for the development of learners to become professionals

3) Create sustainability for higher educations by connecting with society.

4) It is an exchange knowledge in theory, practice, and life skills.

The seven key characteristics of instructional management (Cooper et al., 2010; Morley, 2018) are:

1) There is learning in the real workplace according to the program prepared.

2) It is an integrated learning that is to synthesize theories and practices to create effective work experience. This type of learning occurs both at the individual and organizational levels.

3) Curriculum has assembled a section of learning from real experience at the workplace as part of curriculum. It focuses mainly on learning outcomes.

4) Learning creates experiences and then links them to previous theories and experiences. There is an opportunity to experiment with new ways of working, to work with others (Social interaction), to exchange knowledge in each person (Tacit knowledge), corporate culture and practical knowledge (Doing Knowledge).

5) This type of teaching requires a strong partnership between higher education institutions and business sectors with the common goal of developing work and education together.

6) Learners need support in real world workplaces. Learners need support for adaptation in many areas that higher education institutions and enterprise's needs.

7) Learners need to be prepared for work-based learning before and during their work at the workplace in terms of the skills necessary to use before starting to work as well as must have a system of Supervising Work-based Learning to provide consulting and assistance for learners.

This teaching and learning system is believed to give learners the potential in obtaining employment or even higher self-employment in the future.

3. Panyapiwat Institute of Management (PIM) and PIM's Work-based learning Model.

Panyapiwat Institute of Management was established in 2008 to provide teaching and learning in 11 faculties, 2 colleges, divided into 2 campuses. The first campus is in Chonburi Province. At present, there are approximately 21,000 students over 15 years. The institution has a continuous growth rate of more than 10 percent per year. Work-based Education teaching management (Suthamanon et al., 2018) consists of 4 main systems:

1) Work-based Teaching (WBT), teaching by a professional, is a theoretical study, general principles, and general education subjects to prepare learners a credential to become productive workforce, well-rounded citizens in an ever-changing world. In addition to knowledge from textbooks, learners are taught from case studies by practitioners in the organizations.

2) Work-based Learning (WBL) is learning by hands-on practice, with a structure support that is the heart of the system (Bhandhubangyong et al., 2019), program placement, trainers, and there is a system for monitoring and evaluating effectively systematic monitoring and assessment systems in the organization.

3) Worked-based Researching (WBR) is a research study by the faculty and/or students based on real research problems

cases in organizations where the research results are ready to be directly applied in practice and return to teaching in the classroom.

4) Networking University is a university that is an important force that makes the work-based education process successful.

Based on research conducted by the Office of Research and Development of Panyapiwat Institute of Management (2019-2021) among employers, it was found that PIM students are ready for immediate employment, while the students themselves highly appreciate this teaching and learning approach.

Result of Suthmanon and Boonyasrirat's study (2021), it was found that PIM's Work-based Education (WBE) teaching and learning process consists of 4 main systems: instruction that prepares knowledge and skills, ready to go to work (Work-based Teaching), practical training with a pattern (Work-based Learning), research development and innovation from real problems that organizations or customers want. All three processes are made possible by networking with business, academia, both nationally and internationally. Factors that contributed to Panyapiwat Institute of Management a successful work-based education for more than 10 years is due to the following factors:

1. Strategic management consists of providing fundamental knowledge about WBE, having committed executives and ready to lead change (Leadership commitment & Leading change) Strategic Performance

Management system with a common goal at WBE (Strategic Performance Management) and inspiring all personnel to aim towards WBE (People Passion).

2. Setting up the basic system that facilitates the implementation of the WBE system consists of the redesign curriculum according to the regulations and in accordance with the WBE, Organizational restructure to support WBE, working process measurement and collaborative work formatting according to WBE model, (Work process & Style redesign) implementation of the results achieved in each phase to lean together tangible (Real core & Solutions Lab Learning).

In the international stream higher education administration, there has been a shift in adaptation to be able to go through disruption, where severe challenges arise from a smaller number of learners, and unable to meet the needs of society and economy. Studies by Connell (2019), Boggs et al. (2021), and Chen et al.. (2019) propose that higher education institutions reorganize their administration system as follows:

1. Strategy, higher education institutions must plan strategies based on the needs of society to create a shared vision to take advantage of opportunities in a knowledge-driven economy to get the most benefit, must be a strategy thar creates sustainability, for example, the incomes from many sources, create new programs and services (New Program and Services).

2. In terms of products and services, higher education institutions must develop learning programs that make learner ready to use, create value and create real work (Learner do creative work), and create creative research.

3. Effective management, higher education institutions must set up a performance management system, and efficient work processes (Performance and operation efficiencies), create participation, engage allocate by sharing responsibility in a systematic and harmonious way.

4. Human resource/People management and team, higher education institutions must create shared values and democratic culture, work inspiration, develop to be a healthy workplace, engagement with the organization, although there are differences within the organization.

Research Conceptual Framework

After synthesizing the literature and related research, specifically focusing on the study findings of Suthamanon and Boonyasrirat (2021) regarding the management approach of PIM, the proposed research framework is as follows.
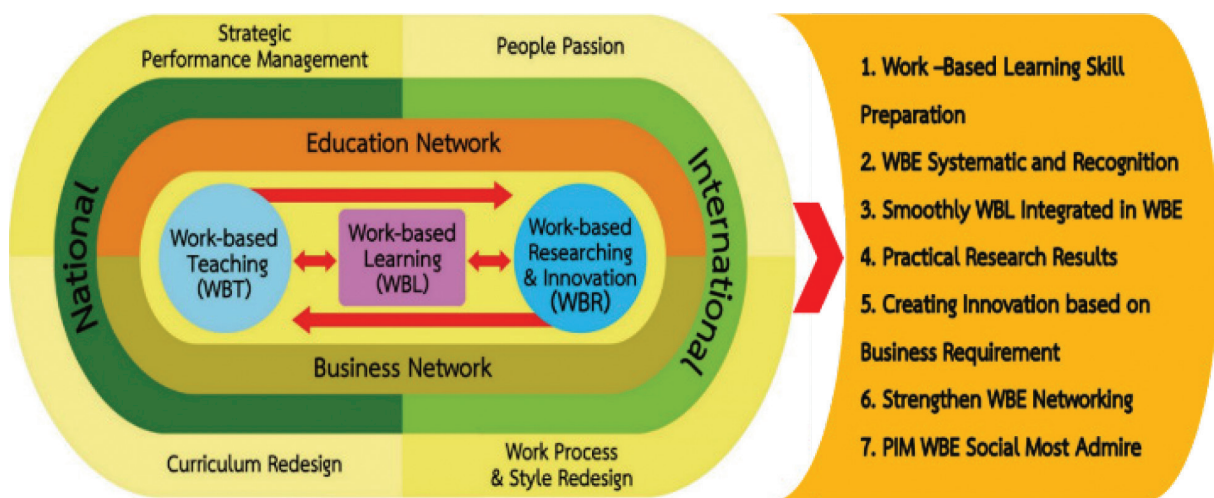
Figure 1 Research Conceptual Framework

As presented on the above figure, there are 4 main teaching and learning systems which consist of work-based teaching system, work-based learning, worked-based research & innovation, and work-based network is successfully managed by 4 main systems:

1. Strategic performance management to become WBE which consists of:

    1.1 Leader/Executive committed to pushing institutions to provide teaching and learning in the WBE style.

    1.2 Vision and mission to develop WBE education.

    1.3 Strategic plan and an action plan to support a WBE.

    1.4 Transfer and convert strategy to WBE into management to produce real results.

2. Build People Passion is that management and building trust in the WBE system (WBE) consists of:

    2.1 Organizing resources and working for personnel to learn WBE from workplace.

    2.2 Old and new personnel communicated, create understanding, focus and build confidence in WBE.

    2.3 Personnel are motivated/inspired to better manage WBE education.

    2.4 An organizational structure that clearly states the mission to support WBE teaching and learning.

3. The curriculum redesign development of the WBE curriculum consists of:

    3.1 Designing the curriculum as a WBE correctly according to higher education model.

    3.2 A workplace and an internship network contributed to the design of the course from the beginning.

    3.3 Improving the curriculum regularly, according to changing circumstances of each profession, there is no need to wait 5 years.

    3.4 Organizing a working group/ project together with stakeholders both inside and outside institute to aim for WBE learning management.

4. Work process & style redesign development consists of:

    4.1 Setting up a work system, enabling the WBE system to respond to the needs of students.

4.2 Setting up a working system, enabling the WBE system to respond to the needs of the workplace.

4.3 Regular review and improvement of work processes to support WBE.

4.4 Stakeholders have the opportunity to participate in the important points of making WBE.

The initial success of PIM's Work-based Education system can be measured in 7 dimensions as follows:

1. Work-based Learning Skills Preparation
2. WBE Systematic and Recognition
3. Smoothly WBL Integrated in WBE
4. Practical Research Results
5. Creating Innovation based on Business Requirement
6. Strengthen WBE Networking
7. PIM WBE Social Most Admire

Methodology

This research is quantitative research. Data were collected by questionnaires from 217 administratives and academic personnels at the level of manager and above of Panyapiwat Institute of management. This is a target group that plays a direct role in the management of PIM. The Item-Objective Congruence (IOC) was used to find the content validity. The questionnaire was checked by four experts to evaluate the items of the questionnaire. On the overall of items and each of the items that had score higher than 0.75 were reserved. The reliability value was calculated by using Cronbach's alpha, the questionnaire was highly reliable at the level of 0.955. Data were analyzed using correlation statistics, multiple regression analysis, and multiple linear regression analysis by Enter method to test 4 hypotheses.

Research Hypothesis

The following hypothesis were formulated.

Hypothesis 1 Strategic performance management to become a Work-based Education (WBE) positively influences the outcome of PIM's WBE operations.

Hypothesis 2 Build people passion by management system and building trust in WBE had a positively influenced the outcome of PIM's WBE operations

Hypothesis 3 The curriculum redesign had a positively influenced on the outcome of PIM's WBE implementation.

Hypothesis 4 Work process and style redesign had a positively influenced on the outcome of PIM's WBE implementation.

Results

The results were presented in two parts: (1) the relationship of the variables and (2) Hypotheses testing results.

Table 1 The relationship of the variables

Variables	Strategic performance management	Build people Passion	The curriculum redesign	Work process and style redesign	Th outcome of PIM's WBE implementation
	X1	X2	X3	X4	Y
1. Strategic performance management (X1)	-	.772**	741**	.653**	.689**
2. Build People Passion (X2)			.871**	.813**	.805**
3. The curriculum redesign (X3)				.792**	.789**
4. Work process and style redesign (X4)					.853**

**Correlation is significant at the level of 0.01 (2-tailed)

The results of correlation analysis were found that all independent variables were related to criterion variables with statistical significance at the 0.01 level. To examine the relationship between the variables used in the research the correlation coefficient between the independent variables must be less than 0.80 (Cooper & Schindler, 2006). This research found that some independent variables were highly correlated. The researcher had to consider together with VIF values to test for Multi collinearity as shown in table 2. It was found that the independent variables' VIF values ranges from 2.60-5.68 were less than 10. The independent variables were not correlated; therefore, it can be used to analyze multiple regression (Cronbach, 1990).

Table 2 Multi collinearity analysis

Topic	Collinearity Statistics	
	Tolerance	VIF
Strategic performance management	.384	2.606
Build people Passion	.211	4.730
The curriculum redesign	.176	5.680
Work process and style redesign	3.10	3.231

Table 3 Multiple regression analysis by enter method

Topic	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	.634	.193		3.286	.001
Strategic performance management	.125	.061	.108	2.050*	.042
Build people Passion	.122	.061	.154	1.984*	.049
The curriculum redesign	.129	.063	.146	2.056*	.041
Work process and style redesign	.599	.065	.542	9.266*	.000

Significant at the level of 0.05, R = 0.881, R^2 = 0.775, Adjusted R^2 = 0.771, Std. error of the estimate = 0.344, and Durbin-Watson 2.046. A dependent variable: result of PIM's WBE operation *p<.05

From table 3, the analysis of factors affecting the outcome of PIM's WBE operation revealed that the predicted model was significant at 0.05, R = 0.881, R^2 = 0.775, Adjusted R^2 = 0.771, Std.error of the estimate = 0.344, and Durbin-Watson 2.046; the multiple regression can be analyzed to test the hypotheses; the finding was in accordance the following hypotheses:

Hypothesis 1, Strategic performance management had a statistically significant positive influence on the outcome of PIM's WBE implementation (B = 0.125, p<0.05).

Hypothesis 2, Build people Passion had a statistically significant positive influence on the outcome of PIM's WBE operation (B = 0.122, p<0.05).

Hypothesis 3, The curriculum redesign had a statistically significant positive effect on the outcome of PIM's WBE operation (B = 0.129, p<0.05).

Hypothesis 4, Work process and style redesign had a statistically significant positive influence on the outcome of PIM's WBE operation (B = 0.599, p<0.05).

Discussion

The results of this research, it can be concluded that the implementation of the four systems affects the success of WBE of the Panyapiwat Institute of Management. PIM Work-based Education Management System consists of 4 subsystems: (1) Work-based Teaching, (2) Work-based Learning, (3) Work-based Researching and Innovation, and (4) Networking University.

1. Work-based Teaching is to prepare theory and practice important skills by teachers and people who actually work in the business sector.

2. Work-based Learning is a practical training at the workplace with real work and environment.

3. Work-based Researching is a research study by faculty and/or students based on real problems that the workplace needs.

4. Networking University is building with stakeholders closely.

PIM Work-based Education system above can be realized and effective requires a management system in 4 dimensions namely:

1. Strategic management towards becoming a WBE which consists of sub-systems are: 1.1 Leaders/Managers pushing for WBE teaching and learning; 1.2 Have vision and mission to develop WBE education; 1.3 There is a strategic plan and action plan to support being a WBE; and 1.4 Transfer and convert strategies to WBE into management to produce real results. This system has a statistically significant positive influence on the outcome of PIM'S WBE operations, meaning that PIM is managed through strategic management as proposed by the Office of the President and Sustainability (2021) as well as the suggestions of Chen et al. (2019).

2. Management and building trust in WBE system which consists of sub-systems are: 2.1 Resource allocation and working for personnel to learn WBE; 2.2 Personnel receive communication create understanding see the importance and build confidence in WBE; 2.3 Employees are motivated/ inspired to provide WBE; and 2.4 establish an organizational structure that identifies the mission to support WBE teaching and learning. This system had a statistically significant positive influence on the outcome of PIM's WBE implementation. This suggests that human resource management

adjustments are consistent with studies by Boggs et al. (2021).

3. The development of the WBE teaching and learning curriculum, which consists of sub-systems are: 3.1 Correctly design the course as a WBE; 3.2 Workplaces and internship networks contributed to the design of the course from the beginning; 3.3 Update the curriculum regularly according to changing circumstances; and 3.4 there are organized into working groups/projects together with stakeholders inside and outside institution. This system had a statistically significant positive influence on outcome of PIM's WBE operations. Represents the development of PIM's curriculum in a WBE format consistent with the study results of Bhandhubangyong et al. (2019) and Morley (2018).

4. Developing processes and working models in accordance with the WBE, comprising sub-systems: 4.1 work system to be able to meet the needs of students; 4.2 Setting up the work system, enabling the WBE system to respond to the needs of the workplace; 4.3 There is a review and improvement of work processes; 4.4 stakeholders have the opportunity to participate in the important points of making WBE. This system had a statistically significant positive influence on the outcome of PIM's WBE operations, meaning that PIM optimizes the WBE process, consistent with the results of the study by Boggs et al. (2021) and Connell (2019).

All four of the above management systems operate in harmony. Therefore, the PIM work-based education teaching system can

be created effectively that can be measured with the following 7 dimensions:

1. Work-based learning skill preparation, this provide teaching and learning skills for learners to be ready to go on an internship.

2. WBE systematic and recognition, there is a training system to support WBE teaching and learning.

3. Smoothly WBL integrated in WBE, teaching in educational institutions is consistent with learning in the workplace.

4. Practical research results, the research results can be applied in practice.

5. Creating innovation based on business requirement, which can create innovations that answer real questions.

6. Strengthen WBE networking, there is a strong WBE support network.

7. PIM WBE social most admire.

In summary, the WBE teaching method, consisting of the above-mentioned four core systems, requires a supportive management system as a background for its success. These four systems contribute to achieving the goals in seven aspects.

Conclusion

The finding was in accordance the following hypotheses:

Hypothesis 1, Strategic performance management had a statistically significant positive influence on the outcome of PIM's WBE implementation (B = 0.125, p<0.05). This means that if focusing strategic management of one WBE unit, the result of PIM's WBE implementation will increase by 0.125.

Hypothesis 2, Build people Passion had a statistically significant positive influence on the outcome of PIM's WBE operation (B = 0.122, p<0.05). This mean that if focusing on the management system and trust building system of one WBE unit, the result of PIM's WBE implementation will increase by 0.122.

Hypothesis 3, The curriculum redesign had a statistically significant positive effect on the outcome of PIM's WBE operation (B = 0.129, p<0.05). This means that if focusing on curriculum development of one WBE unit, the result of PIM's WBE implementation will increase by 0.129.

Hypothesis 4, Work process and style redesign had a statistically significant positive influence on the outcome of PIM's WBE operation (B = 0.599, p<0.05). This means that if focusing on process and working style development of one WBE unit, the result of PIM's WBE implementation will increase by 0.559.

The forecast equation in raw score form is as follow:

$$Y' = 0.634 + 0.125 (X_1) + 0.122 (X_2) + 0.129 (X_3) + 0.599 (X_4)$$

Recommendations

From the results obtained from this research, there are two recommendations:

1. Recommendation for this research to other educational institutions that wish to develop Work-based Education Teaching and Learning, they can use research results in each dimension as a benchmark tool to assess their readiness to development that emphasizes learning from real experience.

2. Recommendation for next research, in the future, there should be more studies in other higher education institutions that offer the same teaching methods but have different

companies to make the development of teaching methods in the same way. This is more solid.

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