

# Organizational Commitment of Vocational College Personnel in Thailand: A Confirmatory Factor Analysis

Jitjan Saraviroj<sup>1\*</sup>, Boonchan Sisan<sup>2</sup>, Thanin Ratanaolarn<sup>3</sup>

<sup>1,2,3</sup> King Mongkut's Institute of Technology Ladkrabang, Faculty of Industrial Education  
1 Chalong Krung 1 Alley, Ladkrabang, Bangkok 10520, THAILAND

\*Corresponding Author: [jitjan.keaw@gmail.com](mailto:jitjan.keaw@gmail.com)  
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## Abstract

Issues of personnel commitment and retention challenge many industries and have significant impact on educational institutions. The objective of this study of organizational commitment among vocational college personnel in Thailand is to examine the construct validity of theoretical data with empirical data using confirmatory factor analysis. The population and sample were teachers and personnel working in vocational educational institutions in Thailand, totaling 640 teachers and personnel from 651 educational institutions, a sample size determined by synthesized criteria and using multi-stage random sampling. The research instrument was a 5-level rating scale questionnaire, validated by 5 experts, and tested to have a confidence value of 0.89. Data were examined to appraise initial consistency before further analysis and evaluation of the specified statistics and criteria. The research results found that the model is consistent with the empirical data through the specified criteria, with all variables having weights that pass the analysis criteria and being statistically significant. Based on the factor analysis, it can be confirmed that the 4 elements of superior leadership, entrepreneurial characteristics, organizational culture of learning, and organizational commitment, along with their associated components, comprise the structure of organizational commitment among vocational college personnel in Thailand.

## 1. Introduction

Commitment is essential to the survival and effectiveness of every organization, as stakeholders having high levels of commitment will perform better than those with low or no organizational commitment (Saks, 2006). This in turn benefits both the organization and the workers themselves (Schaufeli, 2015) and commitment has become regarded as a highly desirable quality for all types of organizations. If employees demonstrate adequately high levels of commitment to an organization, tangible gains and advantages will follow (Christian, Garza, & Slaughter, 2011). Morale and work environment within the organization will also be positively affected allowing for the recruitment and acquisition of more employees who are dedicated and mentally motivated. Detrimental qualities adversely impacting organizational health and effectiveness, such as high absenteeism rates, lack of continuity from job transfers and employee turnover, will be reduced as well (Kennedy, 2006), as employees remain dedicated to their roles and remain in them to help achieve the organization's set goals by creating efficiency and effectiveness (Thanchaikon, 2019).

The vast majority of organizations in Thailand place great importance on personnel, operating under the principle that human resources are the most valuable resource in any department and is the element that will lead to survival and success. Therefore, it is commonplace to establish and maintain a department that oversees and is

responsible for the development of personnel. Such a department is tasked with offering encouragement, providing necessary resources, building morale, and ensuring a friendly and productive work environment so that personnel can perform effectively for and develop commitment to the organization. As such, the ability of the organization to retain these quality employees for as long as possible is increased (Abhiprayasakul & Kanchanathaweekul, 2019). Professional development and career advancement opportunities such as performance-based promotions are also tools that can be prioritized to foster greater participation and engagement in the workplace, as they can help stimulate motivation and improve the work of personnel (Noknoi, 2017; Tladinyane & Van der Merwe, 2016).

Acknowledging the importance of supplementing human resources with adequate motivation and morale is essential in engaging personnel and having them channel their energy and abilities through dedication to their work to achieve the results the organization has set as desirable. Measures must be taken and sustained to develop employee commitment and to retain valuable personnel within the organization for as long as possible. Finding factors that affect the morale and commitment of employees is therefore necessary for organizations, especially in situations where competition is high such as educational institutions (Saks, 2006; Boyatzis & Goleman, 2007). Considerable effort has been made to build organizational commitment among teachers and educational personnel (Crosswell, 2006) because they are key to the effectiveness of schools, and it takes much time and effort to cultivate the necessary experience they need. Suitable replacement of manpower to offset an aging workforce and employee turnover is not keeping pace with demand, especially in private non-government institutions. There exists in the private sector a serious problem in retaining teachers and educational personnel, be it in instilling in them commitment to the field or convincing them to remain with the organization until retirement (Steers, 1977), because teachers and educational personnel gravitate toward government institutions where they perceive job security as being comparatively highly stable and anticipate more benefits. Once in a government job, there is less risk of termination, so a significant number of personnel employed at private institutions opt to resign and rather pursue a position at one that is directly under the government. Others simply change careers out of dissatisfaction, disillusionment or a hope to find employment in a field that would yield greater financial gain.

Vocational education institutions in Thailand currently have major policies for the development of teachers and educational personnel under their supervision to possess skills and professional expertise and also to effectively transfer this specialized knowledge to students so that they can successfully enter the job market. Incentives have also been established for teachers and educational personnel to have continuous professional development (Office of the Vocational Education Commission, 2023). However, the number of teachers and educational personnel in vocational education institutions is continuously decreasing, likely due to changing careers or resignation before retirement. Self-employment has also become an attractive option for many who leave the profession, as it is an avenue that can generate better income and be a more flexible occupation than being part of an educational institution. Some who seek alternative careers deem the education system as either too unreasonably demanding or lacking sufficient challenges, considering its high workload or rote nature, and feel they are not as fulfilled or successful as they should be in their jobs at vocational education institutions. This wave of personnel exodus has become a critical issue, and a significant factor is the failure to cultivate organizational commitment and participation. This departure of talent has great impact on the industry, and vocational education institutions in particular, and issues of commitment and retention must be investigated so that solutions can be devised and implemented to counter or lessen the resignation and transfer of teachers and educational personnel. Studies have indicated that factors leading to the intention to resign from the profession include workload, stress and unreasonable quality expectations (Pradana & Salehudin, 2013; Erat, Kitapçı, & Comez, 2017). As of late the problem is severe, with the pool of potential teachers dwindling and those remaining increasingly lacking necessary levels of commitment (Crowley, 1998) adversely affecting the quality of vocational education institutions by making it much more difficult, if not impossible in some cases, to find desirable candidates for employment (Samanpued, 2018). Vocational education institutions need to urgently find ways to address this problem and to create a bond between the organization and its employees to maintain quality long-lasting personnel. Thailand's National Institute for Development of Teachers, Faculty Staff and Educational Personnel (NIDTEP) has provided clear guidelines regarding these matters (National Institute for Development of Teachers, Faculty Staff and Educational Personnel, 2022) and vocational educational institutions need to find ways to retain teachers and educational personnel under their supervision by researching and employing methods related to fostering organizational commitment. Similarly, through a study of organizational commitment of teachers and personnel in vocational colleges in Thailand, the Office of the Vocational Education Commission (2023) has found that there has yet been no specific research into the components used as principles to create and foster organizational commitment, with the only relevant study for educational institutions to reference being of documents having unclear distinction between theoretical data and empirical data, and recommended that affiliated educational institutions develop management models or guidelines for establishing and developing organizational commitment in teachers and educational personnel at vocational education institutions. Furthermore, because of changes in the retirement rate of government officials, increases in

resignations have persisted due to employees leaving to fill government positions, also affecting the management of educational quality.

A study of organizational commitment of teachers and personnel in vocational colleges in Thailand is necessary so that research results can be utilized to solve problems that vocational education institutions are facing. Although research on work satisfaction of teachers and educational personnel in Thailand exists, there is little addressing organizational commitment of teachers and educational personnel.

This study synthesizes data from notable pertinent concepts and existing research to determine elements of organizational commitment for teachers and personnel in vocational colleges in Thailand, yielding in 3 observable variables pertaining to superior leadership (1. consciousness and awareness, 2. moral characteristics, and 3. faithfulness), 6 observable variables pertaining to entrepreneurial characteristics (1. individuality, 2. innovation, 3. risk-taking, 4. competitive progress, 5. consistency and attention to learning, and 6. concern for success), and 5 observable variables pertaining to organizational culture of learning (1. knowledge of personnel, 2. thinking style, 3. shared vision, 4. team learning, and 5. systematic thinking).

The components and variables obtained from the synthesis of the concepts, theories, and research above were examined statistically using the confirmatory factor analysis technique to prove the relationship of the factors and variables studied for research result reliability. A modelling computer program was then utilized (Schumacker and Lamax, 2016) to develop these components into guidelines or models for creating organizational commitment, as indicators for the development of administration and development of personnel in vocational education institutions, as well as to solve the personnel resignation or job transfer dilemma being faced by such institutions in Thailand. The research question was whether the components of organizational commitment obtained from the synthesis of concepts, theories, and related studies were consistent with empirical data so that confirmation of theoretical data with empirical data could be achieved. Therefore, the objective of this study was to examine the structural validity of theoretical data with empirical data on the components of organizational commitment of teachers and personnel in vocational colleges in Thailand.

## 2. Methodology

For this research, elements and variables obtained from the synthesis of concepts contained from the pertinent concepts and research were examined statistically with an objective to examine the components of organizational commitment of teachers and personnel in vocational colleges in Thailand. Confirmatory factor analysis was used to analyze and prove relationships demonstrated by the factors or variables studied, along with computer modeling developed from guidelines established by the discovered elements for building organizational commitment to ensure the reliability of results (Schumacker & Lamax, 2016) which would be set as an indicator for the development of management and personnel development as well as for solving problems related to teachers and personnel retention that are affecting vocational education institutions in Thailand.

### 2.1 Population and Sample

The research population comprised of teachers and personnel working in public and private vocational educational institutions that offer courses in commerce and industry under the Office of the Vocational Education Commission, totaling 26,241 people (Office of the Vocational Education Commission, 2023). The criteria for determining the sample size were selected in accordance with the ideas of Hair et al. (2010). The sample size, considered along with the number of parameters to be estimated, should be 20 times the observable variables in this research, of which there were 17. The sample group used was a total of 640 teachers and personnel working at 651 educational institutions, following criteria for using confirmatory factor analysis techniques and considered to be at a very good level (Comrey & Lee, 2013) by the sample using multi-stage random sampling.

### 2.2 Research Tool

The research utilized a 5-level rating scale questionnaire to collect from the sample group opinions on the components of organizational commitment of teachers and personnel in vocational colleges in Thailand, which consisted of 1) superior leadership, for which there are 3 observable variables (1. consciousness and awareness, 2. moral characteristics, and 3. faithfulness), 2) entrepreneurial characteristics, for which there are 6 observable variables (1. individuality, 2. innovation, 3. risk-taking, 4. competitive progress, 5. consistency and attention to learning, and 6. concern for success) and 3) organizational culture of learning, for which there are 5 observable variables (1. knowledge of personnel, 2. thinking style, 3. shared vision, 4. team learning, and 5. systematic thinking). The questionnaire was validated by 5 experts and tested to have a confidence value of 0.89, which has high reliability (Cronbach, 1951; Tavakol & Dennick, 2011), with every question having an IOC value between 0.60-1.00 (Rovinelli & Hambleton, 1997). The questionnaire was uploaded online as an official document on Google Forms and utilized as a convenient channel to collect and confirm data from the sample group. The

researchers received from the sample group a total of 640 completed questionnaires, accounting for a 100% response rate.

### 2.3 Data Analysis

This research used second order confirmatory factor analysis to examine the construct validity of theoretical data with empirical data by analyzing the data with the AMOS program to check the validity of the model (validation of the model), testing the preliminary agreement of the data before analysis and evaluating the specified statistics using the criteria set by Schumacker & Lomax (2016) and Hair et al. (2010) by designating the variables as follows: superior leadership (TDL), entrepreneurial characteristics (ETP), organizational culture of learning (ORL), organizational commitment (CMM), consciousness and awareness (TDL1), moral characteristics (TDL2), faithfulness (TDL3), individuality (ETP1), innovation (ETP2), risk-taking (ETP3), competitive progress (ETP4), consistency and attention to learning (ETP5), concern for success (ETP6), knowledge of personnel (ORL1), thinking style (ORL2), shared vision (ORL3), team learning (ORL4), systematic thinking (ORL5), commitment in attitude or feeling (CMM1), commitment continuity (CMM2) and commitment due to social norms (CMM3).

### 3. Results and Discussion

The results of the confirmatory factor analysis regarding the components of organizational commitment of teachers and personnel in vocational colleges in Thailand are as follows:

Testing the preliminary agreement of the data before analysis revealed that the data on the component set of organizational commitment of teachers and personnel in vocational colleges in Thailand is suitable to be used for confirmatory factor analysis. It was found that Kaiser-Meyer-Olkin = 0.93, Bartlett's Test of Sphericity = 9740.49, df = 136 and p-value = 0.00, as shown in Table 1. For correlation values between observed variables, there were 17 variables with values greater than zero, with statistical significance at the 0.01 level. Every pair had a correlation coefficient between 0.244 - 0.798, as detailed in Table 2, showing that the data obtained from the theoretical study were appropriate for analysis using confirmatory factor analysis techniques (Schumacker & Lomax, 2016 and Hair et al., 2010).

**Table 1** KMO and Bartlett's test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.894
Bartlett's Test of Sphericity Approx.	Chi-Square	9740.49
	df	136
	Sig.	.000

**Table 2** Correlation Coefficient

variable	Correlation Coefficient																
	TDL1	TDL2	TDL3	ETP1	ETP2	ETP3	ETP4	ETP5	ETP6	ORL1	ORL2	ORL3	ORL4	ORL5	CMM1	CMM2	CMM3
TDL1	-																
TDL2	0.696**	-															
TDL3	0.662**	0.763**	-														
ETP1	0.469**	0.448**	0.436**	-													
ETP2	0.436**	0.501**	0.463**	0.666**	-												
ETP3	0.369**	0.413**	0.414**	0.744**	0.742**	-											
ETP4	0.393**	0.414**	0.394**	0.703**	0.714**	0.720**	-										
ETP5	0.421**	0.431**	0.364**	0.720**	0.701**	0.754**	0.783**	-									
ETP6	0.433**	0.449**	0.410**	0.701**	0.695**	0.729**	0.755**	0.793**	-								
ORL1	0.482**	0.401**	0.440**	0.343**	0.404**	0.327**	0.389**	0.348**	0.357**	-							
ORL2	0.426**	0.408**	0.408**	0.368**	0.442**	0.425**	0.460**	0.410**	0.402**	0.749**	-						
ORL3	0.366**	0.437**	0.350**	0.332**	0.313**	0.339**	0.386**	0.373**	0.387**	0.614**	0.609**	-					
ORL4	0.331**	0.361**	0.336**	0.267**	0.254**	0.308**	0.334**	0.321**	0.358**	0.558**	0.591**	0.701**	-				
ORL5	0.451**	0.465**	0.487**	0.342**	0.324**	0.357**	0.378**	0.364**	0.406**	0.591**	0.639**	0.654**	0.700**	-			

CMM1	0.364**	0.409**	0.402**	0.309**	0.313**	0.331**	0.347**	0.334**	0.366**	0.599**	0.626**	0.663**	0.668**	0.683**	-	
CMM2	0.379**	0.402**	0.396**	0.335**	0.311**	0.314**	0.341**	0.334**	0.368**	0.603**	0.624**	0.649**	0.649**	0.643**	0.798**	
CMM3	0.329**	0.371**	0.318**	0.244**	0.278**	0.276**	0.310**	0.271**	0.303**	0.472**	0.522**	0.566**	0.533**	0.511**	0.750**	0.763**

The level of opinion that influences organizational commitment in vocational education institutions is at a high level in all 4 variables, with organizational culture of learning (ORL) having the highest mean at 4.27, followed by organizational commitment (CMM) at 4.26, superior leadership (TDL) at 4.23 and entrepreneurial style (ETP) at 4.09, as shown in Table 3.

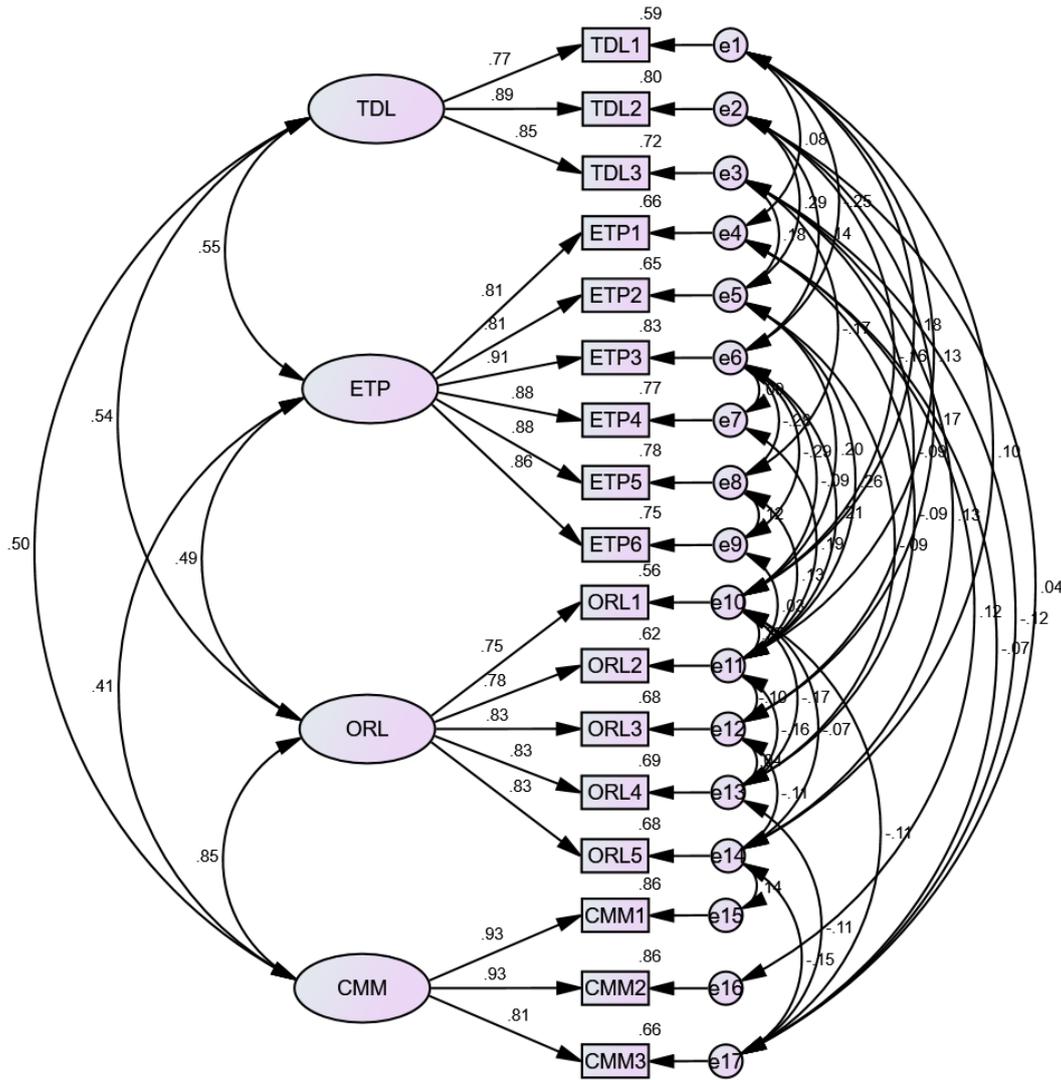
**Table 3** *The level of opinions that influence organizational commitment among vocational college personnel in Thailand*

Components	Mean	Standard Deviation	Result
Superior Leadership (TDL)	4.23	0.50	high level
Entrepreneurial Characteristics (ETP)	4.09	0.58	high level
Organizational Culture of Learning (ORL)	4.27	0.49	high level
Organizational Commitment (CMM)	4.26	0.59	high level

**Table 4** *Results of factor analysis confirming causal factors affecting organizational commitment of vocational college personnel in Thailand*

Components	Results	Supporting Theory
Superior Leadership (TDL)	$\chi^2 = 0.210$ , $df = 1$ , p-value = 0.647, RMSEA = 0.000	Passed Schumacker & Lomax (2010), Hair et al., (2010)
Entrepreneurial Characteristics (ETP)	$\chi^2 = 3.757$ , $df = 5$ , p-value = 0.585, RMSEA = 0.000	Passed Schumacker & Lomax (2010), Hair et al., (2010)
Organizational Culture of Learning (ORL)	$\chi^2 = 0.650$ , $df = 1$ , p-value = 0.420, RMSEA = 0.000	Passed Schumacker & Lomax (2010), Hair et al., (2010)
Commitment to the Organization (CMM)	$\chi^2 = 0.183$ , $df = 1$ , p-value = 0.669, RMSEA = 0.000	Passed Schumacker & Lomax (2010), Hair et al., (2010)
	$\chi^2 = 75.136$ , $df = 59$ , p-value = 0.080, RMSEA = 0.020	Passed Schumacker & Lomax (2010), Hair et al., (2010)

The results of factor analysis confirming the causal factors affecting organizational commitment of vocational college personnel in Thailand found that the model is consistent with empirical data with a value of  $\chi^2 = 75.136$ ,  $df = 59$ , p-value = 0.080, RMSEA = 0.020 and passed the specified criteria (Schumacker & Lomax (2010)). All variables had weight values passing the analysis criteria. For superior leadership (TDL):  $\chi^2 = 0.210$ ,  $df = 1$ , p-value = 0.647, RMSEA = 0.000 and the latent variable has a weight value between 0.58- 0.80. For entrepreneurial characteristics (ETP):  $\chi^2 = 3.757$ ,  $df = 5$ , p-value = 0.585, RMSEA = 0.000 and the latent variable has a weight value between 0.64 - 0.83. For organizational culture of learning (ORL)  $\chi^2 = 0.650$ ,  $df = 1$ , p-value = 0.420, RMSEA = 0.000 and the latent variable has a weight between 0.75 - 0.83. Finally, for organizational commitment (CMM):  $\chi^2 = 0.183$ ,  $df = 1$ , p-value = 0.669 and RMSEA = 0.000, the latent variables had weight values between 0.66 - 0.86, with every component having statistical significance at the 0.05 level as shown in Figure 1.



Chi-square = 72.469,df = 66,p = .273,  
 Chi-square/df = 1.098,  
 GFI = .988, AGFI = .971, CFI = .999,  
 RMR=.008, RMSEA = .012

**Fig. 1** Results of second order confirmatory factor analysis of the model for measuring causal factors affecting organizational commitment of vocational college personnel in Thailand

In addition, the analysis results show that the 4 elements and 17 variables form the structure of organizational commitment of vocational college personnel in Thailand and that some variables have very high weight values (more than 0.90), such as CMM1, commitment in attitude or feeling, or attitude or feeling commitment, and CMM 2, commitment continuity, or continuance of commitment. The weight of the components is very high (factor loading= 0.93), measured by the weight (loading) should be at greater than 0.5 and statistically significant (Fornell & Larcker, 1981; Hair et al., 2010). This confirms the necessity to establish good feelings and attitudes among personnel as these sensitive matters may impede motivation, stall efficiency, or cause the failure of the organization to achieve its goals (Bin Nordin, Mustafa & Razzaq, 2020) and are often factors in teachers’ decisions on whether to resign from or continue working with organizations (Crosswell, 2006). Positive attitudes in work are related to emotional intelligence and lead to personnel performing more efficiently (Ahad et al., 2021). To stimulate positive attitudes within the workplace, organizational administrators should create a professional atmosphere that allows personnel to trust and feel confidence in the organization by having discussions, exchanging ideas, and ensuring that employees understand that achieving the goals of the organization will in turn translate into benefits the employees will receive for themselves. This is a guideline for leading personnel to work

towards set organizational goals (Hazritanto & Ibrahim, 2019) and is consistent with Fiftyana & Sawitri's (2018) research, which found that a good attitude at work allows people to work well and effectively. Administrators in technical and vocational colleges need to emphasize the importance of creating a positive attitude for teachers and educational personnel to bring about effective performance (Wu & Nurlaela, 2020).

Similarly, the research results also confirmed that engagement or commitment continuity is another variable that has a high weight (factor loading= 0.93), indicating that personnel at vocational colleges in Thailand place importance on continuing their work relationship with the organization. This bond is created through psychological mechanisms beyond regulations or policies (Wu & Nurlaela, 2020). By assuring their employees' job stability and advancement, organizations can offset personnel turnover (Komonsanoa, 2016) and nurture continuing allegiance in the long term (Simons & Buitendach, 2013). Executives must design systems that allow personnel to see the benefits they would receive by staying with the organization, such as compensation, benefits, promotions, healthcare or simply meaningful participation in work (Samanpued, 2018), and make these policies clear and well-understood by employees so that they will feel confident in their organizational status and have suitable knowledge of their future with the organization and also involvement in determining their career paths (Chuminchak, 2023). This is consistent with Taunton, Krampitz & Wood's (1989) theory and model of employee retention in terms of organization characteristics, which posited that opportunities for promotion and achievable career advancement are what keeps employees at their jobs. The same is true for the ETP3 variable, risk-taking, as this is another variable with a very high weight, in large part because risk-taking is one of the challenges faced by executives who wish to lead their organizations toward established goals and those executives should be able to exhibit fearlessness and daring when dealing with change to drive their organizational missions to success (Pannarai, 2021). This is especially true for management of vocational education institutions in Thailand, where there is often high competition to reach targets such as the number of student enrolment, costs and, for private vocational institutions, profits (Suppayasarn & Senasu, 2016; Rojjanasodom, Anannawee, & Kosaiyawat, 2018). These issues undeniably challenge the feelings, attitudes and commitment of teachers and educational personnel in vocational education institutions in Thailand.

The component of superior leadership (TDL), which consists of three variables: consciousness and awareness (TDL1), moral characteristics (TDL2), and faithfulness (TDL3), must also be exhibited by administrators in vocational education institutions as inherent traits, importantly because the analysis results confirm that they build necessary bonds in the organization. Moral characteristics (TDL2) has a higher weight than other items, as organizations rely on trust (Strack & Fottler, 2002). Executives must be good role models that are honest and fair (Derue et al., 2011), and therefore those with superior leadership are an important element in building confidence among personnel (Cardona, 2000). Executives with superior leadership skills use inspiration to create a shared vision; it is their ability to lead the organization successfully that sets and achieves challenging goals (Nahavandi, 2015) and inspires confidence in personnel to commit to the future. As a result, personnel can perform their duties more efficiently (Morphet, 2007; Marley, 2003) and feel reassured of their own stability within the organization.

Finally, the organizational culture of learning (ORL) component has 5 items: knowledge of personnel (ORL1), thinking style (ORL2), shared vision (ORL3), team learning (ORL4), and systematic thinking (ORL5). Data analysis confirms that it is also a component that helps build commitment to the organization, with 3 items (ORL3, ORL4 and ORL5) having weights greater than 0.80 (factor loading = 0.82 - 0.84). This is consistent with the research of Neumaier (2020), which found that instilling a culture of learning into educational institutions is done through developing the potential of personnel, who want to succeed and advance in work. They must be encouraged and equipped to continually seek learning opportunities, to practice, and to improve themselves if they are to prosper (Covey, 2020). Working in an organization with an established and flourishing culture of learning gives personnel opportunities and motivation for awareness, positive attitudes, and commitment to the organization through continuous learning and development for both personnel and the organization.

#### 4. Conclusion

The confirmatory factor analysis techniques showed that the model for measuring causal factors affecting organizational commitment of personnel in educational institutions is consistent with empirical data, with every variable having a value passing the specified criteria with statistical significance: component 1, superior leadership (TDL), consists of 3 items (TDL1-TDL3); component 2, entrepreneurial characteristics (ETP), consists of 6 items (ETP1-ETP6); component 3, organizational culture of learning (ORL), consists of 5 items (ORL1-ORL5); and component 4, organizational commitment (CMM), consists of 3 items (CMM1-CMM3). Based on the factor analysis, it can be confirmed that all 4 elements and 17 questions form the structure of organizational commitment in vocational college personnel in Thailand.

The results of the research revealed that the weight of every individual component was at a high level. Significant among these is the organizational commitment (CMM) component. In items CMM1, commitment in attitude or feeling, and CMM 2, commitment continuity, very high component weight values were found so therefore these findings can be useful in designing methods or guidelines for personnel development, such as

policies and group activities to foster inclusion and morale, to create commitment to the organization in vocational education institutions in Thailand. Initiatives such as establishing and implementing activities to motivate personnel to have attitudes or feelings of shared ownership will be of benefit to the organization and using the study's findings in determining how to create morale and encouragement, instill a sense of job security and providing compensation funds will help address the problem of personnel resignation or job transfer. Finally, importance should be given to designing methods or guidelines for personnel development, as this also helps organizational commitment. Executives in vocational institutions in Thailand can utilize these components and variables to inform management decisions and practices, since this data was discovered through confirmatory factor analysis statistics and can reliably be used to develop teachers and personnel under their supervision to have organizational commitment.

However, the researchers acknowledge the limitations in terms of studying qualitative data from document analysis and confirming the data by using statistics to analyze quantitative data. There still exists a lack of precedence in studying data from interviews with sample groups or policy-level executives to consider or analyze data in a comparative manner and obtain more in-depth details. Therefore, in applying the research results, the suggestion is to use the 17 elements and variables found in the study to create an assessment or set of questions to measure organizational commitment of personnel in vocational education institutions or to design a personnel management model to be used in the administration of vocational education institutions for the creation and nurturing of personnel organizational commitment. Further research is needed to collect and study more qualitative data, such as in-depth interviews with sample groups or policy-level executives, to supplement this data set according to the context of vocational educational institutions.

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## Conflict of Interest

The authors of this research declare that there is no conflict of interests regarding the publication of this paper.

## Author Contribution

*The authors confirm their individual contribution to the paper as follows: **conception and design, data collection, preparation of manuscript draft:** Jitjan Saraviroj; **analysis and interpretation of results:** Jitjan Saraviroj, Associate Professor Dr. Boonchan Sisan; **review of results and approval of final manuscript:** Associate Professor Dr. Thanin Ratanaolarn. All authors attest that they have reviewed the results and approve this final version of the manuscript.*

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