The Effect of Transformational Leadership, Change Management, and Employees Engagement on the Competitive Advantage of the Sailing Polytechnic BPSDM Ministry of Transportation

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Abstract:
The objective of this study was to determine the effect of transformational leadership, change management, and employee engagement on competitive advantage. This study used quantitative approach with path analysis techniques. Data was collected by distributing instruments at the Sailing Polytechnic *BPSDM* Ministry of Transportation. The results of the study were as follows, there were: (1) positive direct effect of transformational leadership on competitive advantage; (2) positive direct effect of change management on competitive advantage; (3) positive direct effect of employees engagement on competitive advantage; (4) positive direct effect of transformational leadership on employees engagement; and (5) positive direct effect of change management on employees engagement.

Keywords: Transformational leadership, change management, employee engagement, competitive

INTRODUCTION

The transformational leadership model is concerned with improving followers' performance, and developing followers to their maximum potential. Transformational leadership has a strong set of values and internal principles. It also effectively motivates the followers to act in ways that support organizational interests that are greater than their own interests (Northhoiuse, 2019). This leadership model provides positive changes for followers to move towards achieving competitive advantage, as stated by George Agbonson:

Transformational leadership is a type of leadership style that leads to positive changes in those who follow. Transformational leaders are generally energetic, entusiatic and passionate. Not only are these leaders concerned and involved in the process; they are also focused on helping every member of the group succeed as well (Agbonson, 2012).

In general, The assessment results of the Reform Leadership Training Program organized by the Ministry of Transportation—in order to see the potential for future leaders as measured by several heads of UPT (Technical Implementation Unit) Sailing Polytechnic under the Ministry of Transportation, still did not show maximum results, especially in terms of conveying the concept of change proposed by the candidates for leadership of change.

Apart from being affected by leadership and personnel engagement—including the educators/ lecturers, competitive advantage of education institutions also requires a capable and comprehensive organizational change. Zorn et all defined change as referring "*to any alteration or modification or organizational structure or process*" (Lewis, 2019). Organizational changes and process if implemented under conditions of change in HR marine transportation education institutions are institutional changes to *BLU* and polytechnics.

Organizational changes both the organizational structure and the process of vocational education and training institutions, starting with the change in management structure, which is changing the management of the maritime education and training organization from the Technical Implementation Unit (*UPT*) to the *BLU* (Public Service Agency) work unit, where the organizational structure adjusts by adding business divisions that needed to expand the market to increase the target of *BLU* receiving.

The Technical Implementation Unit (*UPT*) under *BPSDMP* (Transportation Human Resources Development Agency) at the Ministry of Transportation, from 27 *BPSDMP UPT* work units which organize Transportation HR Training since 2009 changed into 23 work units of *UPT BLU*, and 10 of those work units was *UPT BLU* Nautica. Changes as *UPT BLU* meant there was need for changes in the organization and structure of government agencies by taking into account the provisions stipulated in government regulations and other implementing regulations. This was accordance to Law Number 17 of 2003 concerning State Finance and Law Number 1 of 2004 concerning State Treasury which emphasizes the basis of performance in budgeting, which provides an important basis for changes in financial management in Indonesia.

The nautica training institution as a BLU work unit has long been transformed in 2019 has succeeded in increasing its financial performance to the title "Good" as stated in table 1. below:

Tabel 1. UPT BLU Nautica

No	Name of School	BLU status	Financial Performance
1	PIP Makassar	Full BLU PMK 135/PMK.05/2013	AA
2	PIP Semarang	Full BLU KMK No.510/KMK.05/2009 28 December 2009	AA
3	Poltekpel Surabaya	Full BLU KMK No. 486/KMK.05/2010	AA
4	Poltekpel Barombong	KMK No.1267/KMK.05/2015 23 December 2015	B
5	Poltekpel Malahayati	KMK No.1271/KMK.05/2015 23 December 2015	B
6	Poltekpel Banten	KMK No.1270/KMK.05/2015 23 December 2015	B

No	Name of School	BLU status	Financial Performance
7	Poltekpel Sorong	KMK No.735/KMK.05/2016 30 September 2016	B
8	Poltekpel Sumbar	KMK No.737/KMK.05/2019 12 February 2019	-
9	Poltekpel Sulawesi Utara	non BLU (in proposal process)	-

Source: Keuangan Sekretariat BPSMP

Based on the table, the results of the financial performance assessment had not yet been fully followed by professional and modern BLU management. The organizational change model that placed changing in technology, structural, and process was not yet fully maximized, the implementation of information technology through information systems had not been maximally used too, for example: e-learning or other applications that provided a high degree of accountability and continuity for the work units, but this matters has been included into 5 years strategic planning.

Changed in BLU management pattern had consequences in the demands of management to become professional institutions. Through the allocation of effective remuneration, it was expected to increase motivation and employees' engagement to make changes, as conveyed by Purcel, et al who assumed that AMO (A=ablilities, M=motivation, O=Oppurtunity to participate) play an important role in motivating the employees to increase organizational performance and sustaining competitive advantage (Albrecht, Bakker, Gruman, Macey, & Saks, 2015)

Employees' involvement emerged as an important booster of business success in competitive markets. Employees' involvement can be a determining factor in organizational success because their involvement has the potential to significantly influence employees' retention, productivity and loyalty, and also connectivity with customers' satisfaction, company reputation and stakeholders values (Lockwood, 2007). Organizations are looking for employees who are able to adapt in changes, proactive, energetic and creative in facing problems and challenges through engagement (Marwan Milhem, Young Habsah, 2019). It was reinforced by Dona A. Dickson who said that, "*employee engagement is a feeling of commitment, passion, and energy, which translates to the following: high levels of effort, persistance with the most difficult tasks, exceeding expectations, taking initiatives, and increased innovation*" (Donna A. Dickson, 2010).

Change management into BLU, was expected to encourage stronger lecturers engagement, so that they will be able to play a role in advancing their institutions. In school organization lecturers have important role. Based on the Regulation of the Minister of Research, Technology and Higher Education of the Republic of Indonesia (*Permenristekdikti*) Number 50 of 2018 concerning Amendments to the Minister of Research, Technology, and Higher Education Regulation Number 44 of 2015 concerning National Standards of Higher Education, it is stated that lecturer has some main tasks consisting of: (1) planning, implementing, and controlling the learning process; (2) evaluating learning outcomes; (3) guiding and training; (4) doing research; and (5) doing community service. In addition to these basic tasks, lecturer also carries out activities in the form of additional tasks, and supporting activities.

Based on the data, the number of journals made by the lecturers at the nautica vocational training institutions was not yet fully satisfying. The involvement of lecturers in supporting the accreditation and competitiveness of education and training institutions through the publication

of research journals in every UPT nautical had not yet reached maximum results, as the data below:

Tabel 2. The Number of Reseach Journals in Sailing Polytechnic Ministry of Transportation

No	Name of School	Publication Data				
		Sinta Score	Scopus H-Index	Scopus Article	Google H-Index	Google Artice
1	Poltekpel Surabaya	0.22	0	0	4	9
2	PIP Semarang	4.5	3	15	4	51
3	STIP Jakarta	1	0	0	0	0
4	PIP Makassar	0	0	0	0	2

Source: Pusbang Laut BPSDM Kementerian Perhubungan.

Effective leadership in a school is expected to move organizational resources including employees in implementing changes towards competitive advantage.

Based on the background and phenomena that occured, the writer considered that it was very important to do a research on competitive advantages of the educational institution in Transportation HR nautical vocational school. One main reason this study was conducted at the nautical vocational training institutions because the demand for global mariners is quite large, and has the potential to increase the country's foreign exchange. Therefore, that it requires management of professional training institutions and has competency to anticipate dynamic changes and developments, for example, considering global changes of various aspects such as the economy, technology, and industry. Education and training institutions are required to adapt in changing of needs, both through changes in curriculum, syllabus, and enhancing their HR competencies and supporting the infrastructures.

The reason for choosing the polytechnics was due to the changes of the status from academy into polytechnic. The polytechnic had become a BLU work unit so there is flexibility in handling finances in anticipating changes in demand needs in Indonesian labor market, and is expected to adapt quickly to leadership, change management that are supported by the existence of a system of remuneration and compensation, and produces graduates who take part in both national and international labor markets.

BLU Management Professional is increasingly demanded even greater in providing services to the community, along with the increasing of remuneration provided. Change Management which is applied by transformational leadership style, is expected to be able to bind lecturers to have high awareness, commitment, and loyalty to the competitive advantage of the organization.

RESEARCH METHOD

The research method used in this study was Non Experimental Quantitative which aimed to test the theory, show the influence, and predict by using statistical methods (McMilan, 2008).

Quantitative method was used to examine certain representative populations or samples. The research process was deductive, in which to answer the research problems, a concept or theory was used so that hypothesis can be formulated. The hypotheses were tested through data collection in the field. Quantitative research was generally carried out on samples taken randomly, so that the conclusions of research results can be generalized to the population where the samples were taken (Sugiyono, 2014).

The quantitative method chosen for this study was survey method with path analysis technique. The selection of survey method was based on the consideration that this study had 5 (five) variables with data were taken from the same respondents who were answering questions simultaneously, in specified time. Based on the characteristics and the research variables, it was assumed that those five variables were independent. It meant that there was high probability regarding to the existence of interrelated correlation between one variable with other variables.

In this study, there were problems regarding to the effect of transformational leadership, employees engagement and change management on competitive advantage. Therefore, in the analysis model, there are two types variable in the path analysis, they are: exogenous variables and endogenous variables, where exogenous variables provide both direct and indirect influence towards endogenous variable. Endogenous Variable is variable that can influence (Sandjojo, 2011).

The exogenous/ independent variables consisted of: 1) Transformational Leadership (X_1); 2) Change Management (X_2); and 3) Employees Engagement (X_3); while endogenous/ dependent variable were competitive advantage (Y).

The research problem constellation model showed the correlation between the exogenous variables (X) and the endogenous variable (Y) was described as follows:
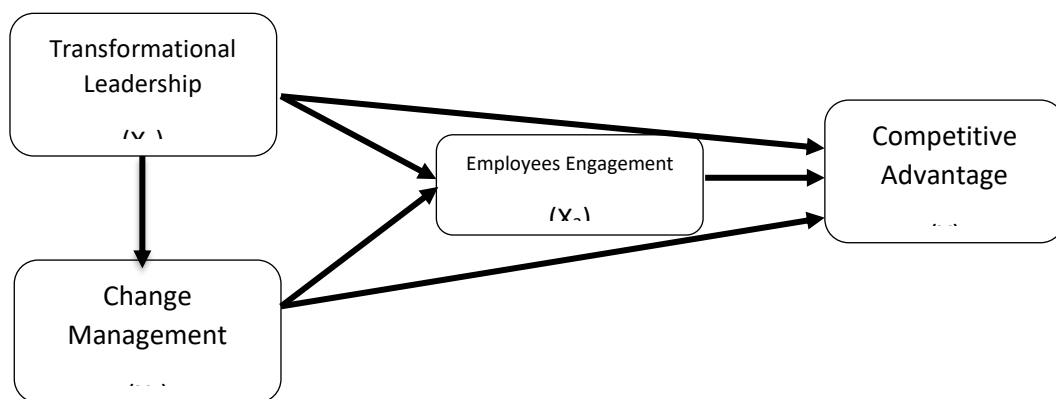

Figure 1. Research Hypotheses Model

RESULTS AND DISCUSSION

Results

The results of the study were generated through several statistical tests. The analysis tests carried out were the normality test of the estimated error of the regression data, the significance test and the linearity of the regression and model testing.

The table below was statistical summary of the basic research data on the central tendency produced.

Tabel 3. Statistics Data

Central Tendency Value		X_1 Transformational Leadership	X_2 Change Management	X_3 Employees Engagement	Y Competitive Advantage
N	Valid	200	200	200	200
	Missing	0	0	0	0
Mean		2.1943	2.0330	2.2803	2.1079
Std. Error of Mean		4.46131	4.67179	4.55754	4.44002
Median		2.1800	2.0700	2.2700	2.1500
Mode		157.00	131.00[a]	161.00[a]	170.00[a]
Std. Deviation		6.80989	7.13118	6.95679	6.77740
Variance		4.637	5.085	4.840	4.593
Range		235.00	266.00	253.00	238.00
Minimum		99.00	57.00	94.00	90.00
Maximum		334.00	323.00	347.00	328.00
Sum		5.11E4	4.74E4	5.31E4	4.91E4

1. Normality Test
   The data used in compiling the regression model must meet the assumption that the data came from a normally distributed population. The normality assumption basically states that in a regression model it must be normally distributed. The assumption test in this study was carried out by testing the normality data from the five estimated error of research regression to be analyzed.
   From the test results on the research sample used, it can be concluded whether the observed population was normally distributed or not. In normality testing, the Lilliefors test was used. In this test, the first error (sample) was arranged in the order of values, and then determined the standard number (Zi), the frequency S (Zi), and the lowest frequency F (Zi). The difference between the lowest frequency and the real frequency was determined at each error values. The maximum absolute value of the difference was referred to as L_{count}. The L_{count} value was then compared with the L_{table} for the real level $\alpha = 0.05$.
   If the L_{count} value $\leq L_{table}$ value then the estimated Y error data for X came from normal distribution population, otherwise if the L_{count} value $> L_{table}$ value then the estimated Y error data for X did not come from the normal distribution population.

Tabel 4 The Resuls Regression Estimated Error Normality Test

Regression Estimated Error	N	L_{count}	L_{tabel} $\alpha = 0,05$	Description
Y over X_1	200	0,022	0,581	Normally distributed
Y over X_2	200	0,031	0,581	Normally distributed
Y over X_3	200	0,051	0,581	Normally distributed
X_3 over X_1	200	0,051	0,581	Normally distributed
X_3 over X_2	200	0,031	0,581	Normally distributed

2. The Significance and Linearity of Regression Tests

The research hypotheses test was carried out by using regression and correlation analysis techniques. Regression analysis was used to predict the relationship model while correlation analysis was used to determine the degree of influence between research variables.

The initial stage of the hypotheses test was to indicate the influence of exogenous variables on endogenous variable in the form of a simple regression equation. The equation was determined by using measurement data in the form of exogenous variables pairs with endogenous variable. Before using the regression equation in order to draw conclusions in hypotheses test, the regression model obtained was tested for its significance and continuity by using the F test in the ANAVA table. The criteria for the significance and linearity test of the regression model were set as follows:

Significant regression: $F_{count} > F_{table}$ on regression line
Linear regression: $F_{count} < F_{table}$ on goodness of fit line

The next step was to conduct a correlational analysis by reviewing the level and significance of the relationship between pairs of exogenous variables and endogenous variable.

The overall results of the significance and linearity regression tests were summarized in the following table:

Tabel 5 The Results of Significant and Regression Linearity Tests

Regression	Regression Equation	Significant Test		Linearity Test	
		F_{count}	F_{tabel} $\alpha = 0,05$	F_{count}	F_{tabel} $\alpha = 0,05$
Y over X_1	$\hat{Y} = -7,369 +0,994X_1$	1.129E5**	3,882	$8,090^{ns}$	1,42
Y over X_2	$\hat{Y} = 18,524 +0,945X_2$	2.346E4**	3,882	$36,459^{ns}$	1,42
Y over X_3	$\hat{Y} = -9,314 +0,965X_3$	1.237E4**	3,882	$1,741^{ns}$	1,42
X_3 over X_1	$\hat{X}_3 = 5,374 +1,015X_1$	1.701E4**	3,882	$1,268^{ns}$	1,42
X_3 over X_2	$\hat{X}_3 = 30,796 +0,970X_2$	2.083E4**	3,882	1.518^{ns}	1,42

3. Model Test

Based on the causal model formed, theoretically a path analysis diagram will be obtained and the coefficient value of each path was calculated. Before performing the calculation to test the causality model using the path analysis method, the research data was tested and had to meet all the necessary requirements.

One very important requirement that must be met was the existence of significant correlation between variables. The correlation that had been proven had not yet concluded the occurrence of a causal correlation between variables. From the field data that had been processed and through various tests required, the next step in testing the causality model was to do path analysis.

Tabel 6. The Results of Correlation Coefficient Test

Matrix	Correlation Coefficient		
	X_2	X_3	Y
X_1	$r_{12} = 0,991$	$r_{13} = 0,992$	$r_{14} = 0,991$
X_2		$r_{23} = 0,991$	$r_{24} = 0,993$
X_3			$r_{34} = 0,990$

In connection with the division of the two models: the first sub-structure model, and the second sub-structure model, it can be explained that the path coefficient value in the first sub-structure model was the path that connected the transformational leadership variable to the competitive advantage variable, the change management variable to the competitive advantage variable, the employees engagement variable to the competitive advantage variable.

Discussion

The results obtained after analyzing the model were used as a basis for answering hypotheses and drawing conclusions in this study. The results of the analysis of research data on the effect of transformational leadership, change management and employees engagement on competitive advantage of the Sailing Polytechnic BPSDM Ministry of Transportation had been tested with four hypotheses proposed and examined at the significance level of $\alpha = 0.05$ or $\alpha = 0.01$. Each path of exogenous variables to endogenous variable had been tested with the results that there were positive direct effects. The explanation can be described as follows:

1. Positive Direct Effect of Transformational Leadership on Competitive Advantage
   The results of the first hypothesis analysis produced findings that transformational leadership had direct positive effect on competitive advantage. Based on these findings it can be concluded that competitive advantage was directly affected positively by transformational leadership. The better transformational leadership will lead to increase in competitive advantage.

2. Positive Direct Effect of Change Management on Competitive Advantage
   The results of the second hypothesis analysis produced findings that change management positively influenced competitive advantage. Based on these findings it can be concluded that competitive advantage was positively influenced by change management.

3. Positive Direct Effect of Employees Engagement on Competitive Advantage
   The results of the third hypothesis analysis produced findings that employees' engagement had direct positive effect on competitive advantage. Based on these findings it can be concluded that competitive advantage was directly affected positively by employees' engagement. Increasing employees' engagement will result in increasing of competitive advantage.

4. Positive Direct Effect of Transformational Leadership on Employees Engagement
   The results of the fourth hypothesis analysis provided findings that transformational leadership had direct positive effect on employees' engagement. Based on these findings it can be concluded that employees' engagement was directly affected positively by

transformational leadership. The better transformational leadership will result in increasing of employees' engagement.

5. Positive Direct Effect of Change Management on Employees Engagement
The results of the fifth hypothesis analysis produced findings that change management had direct positive effect on employee engagement. Based on these findings it can be concluded that employee engagement was directly affected positively by change management. Improved in change management will result in increasing of employees engagement.

CONCLUSION

Based on the results of the analysis and discussion described previously, the conclusions of this study were:
1. Transformational leadership had direct positive effect on competitive advantage. This meant that the better transformational leadership will lead to increase in competitive advantage.
2. Change management had direct positive effect on competitive advantage. That was, the better change management will result in increase in competitive advantage.
3. Employees engagement had direct positive effect on competitive advantage. That was, an increase in employees engagement will result in increase of competitive advantage.
4. Transformational leadership had direct positive effect on employees engagement. That was, the better transformational leadership will result in increased employees engagement.
5. Change management had direct positive effect on employees engagement. That was, increase in change management will result in increased employees engagement.

ACKNOWLEDGEMENT

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