

THE EFFECT OF KNOWLEDGE OF MANAGEMENT, KNOWLEDGE OF INFORMATION SYSTEM AND ASSERTIVENESS ON TRANSFORMATIONAL LEADERSHIP

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Abstract

The objective of this research is to study the direct effects of knowledge of management, knowledge of information system, and assertiveness on transformational leadership of department head at PT Bank SyariahMandiri Head Office. Quantitative method was used in this research as well as Survey Method. The data were obtained by distributing questionnaire and test, and were analyzed by using descriptive and inferential analysis with path analysis approach. This sample of this research were sixty respondent from the population of one hundred and fifty department head and selected by simple random sampling. The study finding are as follow: (1) there is a direct effect of knowledge of management on transformational leadership capability, (2) there is a direct effect of knowledge of information system on transformational leadership capability, (3) there is a direct effect of assertiveness on transformational leadership capability, (4) there is a direct effect of knowledge of management on assertiveness, (5) there is a direct effect of knowledge of information system on assertiveness. As a conclusion, the transformational leadership can be enhanced by knowledge of management, knowledge of information system, and assertiveness.

Keyword: Leadership, Knowledge Of Management, Knowledge Of Information System, And Assertiveness.

Organization is a social structure or unity in which people are organized, and coordinated formally to achieve common goals. In order for the organization to achieve its objectives, the organization must be driven by the leader. Organization is not the tool to achieve the goal, the role of the leader is crucial to success in achieving the goals set.

Banking organization is one of the financial industry sector which human resources are still a major challenge in need. In line with the efforts to get out of the problems faced, Bank SyariahMandiri faced challenges that must be solved, at least identified the current business challenges faced, namely: (1) human resource development challenges such as leadership development effectiveness, organizational learning and competence development, performance standards and management performance, brilliant quality and mental culture, innovative organization and innovation culture; (2) technological challenges of digital business design, technology utilization for competitive advantage, customizing technology to customer needs; (3) the challenges of globalization: market characteristics, industry trends, competition intelligence, market domination and leadership, multicultural issues, and becoming world-class companies; (4) customer challenges, namely contact with customers, product offerings that meet customer needs, and customer satisfaction levels; (5) financial challenges with reduced operating costs, continuous improvement on profitability, shared value; (6) communication challenges such as industrial relations, ineffective communication, communication networks (existence and effectiveness); (7) ethical and business challenges. PT Bank SyariahMandiri addresses the above challenges by preparing human resources as a priority through enhancing leadership skills for its employees. In this research will be studied more deeply about transformational leadership and factors influencing transformational leadership such as knowledge of management, information system knowledge and assertiveness so it is expected to be a model that can be applied in coaching and leadership development in PT Bank SyariahMandiri especially in transformational leadership.

Management

According to Robbin and Coulter, (2013: 36), management is involves coordinating and overseeing the work activities of others so that they are completed efficiently and effectively. Jones and George, (2013: 471) define that *Management is The Planning, organizing, leading, & controlling of human and other resources to achieve organizational goals efficiently and effectively*. According to Fahmi, (2011: 11) management is the process of planning, organizing, and controlling the efforts of members of the organization and the use of all organizational resources to achieve the stated objectives. Some management definitions have similarities that essentially are the effort of achieving the organization's goals through others by utilizing all other resources within the organization. Management is needed at least to achieve goals, maintain a balance between conflicting goals, and to achieve efficiency and effectiveness.

According to Sudaryono, (2014:10) management is the process of finishing activities efficiently with or through others. In management activities there are functions consisting of planning, organizing, implementing (direction and guidance), communication and coordination, leading and controlling, budgeting and supervision Furthermore Ridhotulloh, (2015: 2) define, management is a process of planning, organizing, coordinating, and controlling human resources to achieve effective and efficient targets.

In line with the previous opinion, that management is the process of planning, decision making, leadership, human resources management, finance, physical and information in order to achieve company goals efficiently and effectively. In this sense can be emphasized about the management of resources which in principle is limited, so managers must also have the art of balancing and differentiating interests in the utilization of resources to be more effective and efficient.

Based on these concepts and definitions, it can be synthesized that knowledge of management is the cognitive ability (memorize, understand, apply, analyze, synthesize, and evaluate) owned by the leader in planning, organizing, delegating, directing and supervising to achieve corporate goals effectively and efficient, with indicators: (1) conceptual knowledge; (2) technical knowledge; (3) interpersonal knowledge, combined with indicators of management processes, namely: (1) planning; (2) organizing; (3) coordinating; (4) supervision, to measure the level of depth of knowledge combined with cognitive level indicators, namely: (1) understanding; (2) application; (3) Analysis, (4) Evaluation

Knowledge of Information Systems

Knowledge is the perception of a person over an object or fact, which is absorbed in the mind as the result of the absorption of the senses in an empirically or intuitively obtained way. Empirical means consciously known process, intuitive means unconsciously unknown process. According to Bertrand Russell, (1984: 428) knowledge is divided into two, namely: knowledge of facts (knowledge of facts) and knowledge of the general relationship between facts (knowledge of law or general connection between facts).

Muluk(2008:23) defines that knowledge is structured information, which reveals the relevance, insight and generalization, which is not possessed by simple information. Torrington et.al, (2005: 250) defines that *Knowledge is an abstraction of objective truths that can easily be recorded and manipulated by someone*. This sense has the same meaning as Rusell and Muluk that knowledge derives from the recording and absorption of information by the human senses, the results of sensing are manipulated and processed into something meaningful and useful.

Armstrong (2009:21) defines that *Knowledge is what people understand about things, concepts, ideas, theories, procedures, practices and 'the way we do things around here*. It can be described as 'know-how' or, when it is specific, 'expertise'. According to Chuck Williams, (2007: 652) knowledge is

define as follows: "Knowledge is the understanding that one gains from information". Knowledge is the notion of something derived from the information received. Furthermore Lussier and Achua associate knowledge with the organization, with the following definition: *knowledge is the possessed by an individual about the content companies such as products, services, systems and processes*. Peter F. Drucker, (1990: 251) explains that knowledge is the result of information processing so that it can lead to perform an action or something that can make a person perform different actions more effectively. Similar to Peter F. Drucker, Steven L. McShane and Mary Ann Von Glinow mention, *Knowledge acquisition includes the process of extracting information and ideas from the external environment as well as through insight*. Benjamin Bloom, (1984:7), any effort involving brain activity is included in the cognitive domain. Cognitive domain is related to the ability to think, including the ability to memorize, understand, apply, analyze, synthesize, and the ability to evaluate. In the real of cognitive, that there are six aspects or levels of thinking process, ranging from the lowest level to the highest level. The six levels or aspects are: (1) knowledge, recalling factors that have been studied; (2) comprehension, including understanding of existing information; (3) application, including the skills of applying the learned information or knowledge to the new situation; (4) analysis, including sorting information into sections or researching and trying to understand the structure of information; (5) synthesis, including applying existing knowledge and skills to combine elements into a pattern that did not exist before; (6) evaluation, including decision-making or concluding based on the criteria that there are usually questions using the word: consider, how the conclusion.

Laudon and Laudon (2013:605) define that *Information Systems is interrelated components working together to collect, process, store and disseminate information to support decision making, coordination, control, analysis, and visualization in an organization*. In line with Laudon's opinion, Valacich (2012:51) defines that *information system is a combination of telecommunications hardware, software, and networks as well as people who build and use to collect, create, and distribute useful data for the benefit of the organization*. The opinions of the two experts have in common that the information system is a combination of hardware, software and communication networks and the people who build, manage and use it for the benefit of the organization. Valacich further mentioned that the importance of information systems for the benefit of human life as a foundation for forming a Knowledge Society. Knowledge will be a valuable resource, much more valuable than other assets such as land, labor and capital.

Robbins and Coulter (2013:525) argues that *the information system is system used to provide managers with needed information on a regular basis*. According McLeod (1993:426), *management information system (MIS) is a computer based system that is made available to user with similar need*. The user usually comprise a formal organizational entity - the firm or a subsidiary subunit. This understanding focuses more on how managers need information regardless of how the information is obtained and how it is processed. Limitations of information will affect the quality of decisions made by managers.

O'Brien (1996:6) mentioned that *Information system is an organize combination of people, hardware, software, communications networks, and data resources that collects, transforms, and disseminates information in an organization*. Furthermore according Haag et. al. (2004:4) define that *Management Information System (MIS) is the deals with the planning for, development, management, and use of information technology tools to help people perform all tasks related to information processing and management*. From this those point of view it has been asserted by the O'Brien and Haag as a complement to the previous definition that explains more clearly what information systems and what management information systems are.

Lucas (1997:7) looked at the information system from a technical point of view, with the following definition, *Information technology refers to all forms of technology applied to processing, sorting and transmitting information in electronic forms.* Then, Burch (1996:4) defines that *Information is the result of modeling, formatting, organizing, or converting data in a way that increases the level of knowledge for its recipient.* Lucas and Burch use the term information technology which means it has similarities to the term information system. In this case Lucas views from a technical point of view how the information is processed, sorted and delivered electronically to the user. Some information systems books emphasize technical management in the scope of information technology, and many view from the benefits of enterprise management such as accounting and business processes.

Furthermore, based on the concepts, definitions and characteristics of information system knowledge it can be synthesized that knowledge of information systems is the ability of cognitive (memorize, understand, apply, analyze, synthesize, and evaluate) owned by the leader in utilizing the application of information systems with indicators: (1) strategy of competitive advantage (competitive advantage); (2) supply chain management and cash management system; (3) management and dissemination of information; (4) knowledge management; (5) operational support, decision making, control & monitoring, combined with measurement of cognitive depth with indicators: (1) knowledge; (2) understanding, and (3) application.

Assertiveness

Assertiveness is a style of communication that is not just the extent to which others understand something that has been said, but it is hoped that others should also understand what is desired. Some people or individuals are not easy at solving problems or negotiating because they are not aware that they do not understand each other. Foss, (2009: 46) defines that *Assertiveness is consider a constructive trait because it involves verbal and non verbal symbolic to exert control obtain justified, reward, and stand up for one's right.* Paterson, (2000: 57) defines that *Assertiveness is a style of communication that can be used in all of these situations. But it is only one of four such styles. The other three are the passive style, the aggressive style, and the passive-aggressive style.*

Assertiveness is a communication style that can be used in all situations, the other three styles are passive style, aggressive style, and passive-aggressive style. Everyone has all three elements of that style, unconsciously one of the styles will become dominant formed due to the habits, needs and character of the person concerned. It can also be formed because of the environment that causes a person to have the dominance of a particular style.

Potts, (2013: 224-225) defines that *Assertiveness is a way to communicate feelings and needs while respecting the rights of others. What took me years to learn was how to respect my own rights.* According Cawood, (1997: 13), assertiveness as an expression of mind, feeling, need, or right of right without an unreasonable anxiety directly, honestly and in its place. Eshelman, (2008: 9) mentions, *Assertiveness is personality trait, It is thought that some people have it, and some people did not, just like extraversion or stinginess.*

The expression intended in this assertiveness here is the presence of elements of skill in giving opinion, point of view and expressed hope. Conversely also skills to receive information as a reflection of the contents of the message delivered, such as receiving criticism, praise and perhaps anger. An assertive person will remain graciously receiving feedback in any form without experiencing anxiety. Assertiveness behavior is a personality trait that is not always shared by everyone as well as extraversion or stinginess. Assertiveness is a discipline that has long existed because basically the behavior attached to a person.

Based on the concepts and definitions of such assertiveness, it can be synthesized that assertiveness is the ability to behave to express the knowledge and creativity that exist in their thoughts and feelings to others firmly, openly and maintain and evaluate the rights and feelings of others, 1) communicate explicitly; (2) communicating openly; (3) communicating with other parties.

Transformational leadership

Amstrong, (2009: 376) define that *leadership is the process of inspiring people to do their best to achieve the desire result*. It also can be define as ability to persuade others willingly to behave differently. Similarly, Kreitner and Kinicki, (2011: 468) define that *Leadership is a process whereby an individual influences other to achieve a common goal*". According to Kreitner and Kinicki leadership is the process by which individuals influence others to achieve company goals. Can be described that leadership is a process of interaction between leaders and followers that involve influence in order to achieve goals, and occurs at all levels in the organization both individual level and group level. Individual influences include mentoring, coaching, inspiring and motivating, leaders also form teams or groups in order to shape the culture and make changes at the organizational level. The nature of a leader is a physical or personality trait that can be used to differentiate leaders from followers. While

Hughes, Ginnett and Curpy, (2012: 5) suggests that in order to subordinate to behave according to his wishes, then the boss always give encouragement to subordinates. Furthermore Kottter (1997: 16-17) classifies leadership into two basic things: (1) a process of movement of a group or several groups of people in the same direction without coercion, and (2) referring people who play a role in context a process. John C. Maxwell, (2013: 9-13) points out that a leadership process indicates how subordinates work in an effective way. This process is illustrated in a frame work on how subordinates are motivated to work effectively and on the basis of what encouragement they can work with passion and work with the heart. Based on the concepts and definitions of experts can be synthesized that leadership is the process of influencing, directing, and coordinate all the activities of the organization or group to achieve goals

METHOD

The approach used in the research is quantitative approach, using survey method with technical path analysis. The research variables consist of exogenous variable: Knowledge Management (X1), Knowledge of Information System (X2), as well as variable of Assertiveness (X3) as intermediate endogenous variable, and Leadership Transformational (Y) as main endogen variable. The analysis begins with a test of analysis requirements through validity and reliability tests for instrument items. Then, a descriptive analysis test that includes percentage, average, maximum and minimum values, standard deviation, mode, and median. Next, the error normality test, significance test and linearity test, before performing hypothesis test.

RESULTS

Summary Normality Test Results

No	Estimated error	N	Lhit	Ltab	Description
1	Y on X1	60	0,105	0,1144	Normal
2	Y on X2	60	0,075	0,1144	Normal
3	Y on X3	60	0,053	0,1144	Normal

4	X 3 on X1	60	0,081	0,1144	Normal
5	X 3 on X2	60	0,056	0,1144	Normal

1. Significance and Linearity Test of Transformational Leadership Regression Model(Y) on Knowledge Management (X1)

After the calculation and analysis of the transformational leadership regression equation on Knowledge Management (X1), the following is, Anava Test Significance and Test Regression linearity between Y with X1, $Y = 96.3573 + 0.815 X1$

Source of varians	Degree Of Freedom	Some Of Squares	Mean Squares	F Count	F Table 0,05
Total	60	751.177,00			
Coefficient (a)	1	745.266,15			
Coefficient (b/a)	1	610,54	610,540	6,68**	4,01
Rest	58	5.300,31			
Suitable Tuna	15	1.501,71	100,114	1,13	1,98
Error	43	3.798,60	88,339		

Value F_{count} obtained by 6, 68 while F_{table} with df numerator 1 and df denominator 58 at significance level $\alpha = 0,05$ equal to 4,01, it appears that value $F_{count} > F_{table}$. This shows that the regression coefficient of Y over X1 is very significant at $\alpha = 0,05$. The value of F tuna matches 0.50 while the value F_{table} with df numerator 24 and df denominator 34 at significant level $\alpha = 0,05$ of 1.13, it appears that the value $F_{count} < F_{table}$, it can be concluded that the form of regression Y over X1 is linear.

2. Significance and Linearity Test of Transformational Leadership Regression Model(Y) on Knowledge of Information System (X2)

After the calculation and analysis of the Transformational Leadership (Y) regression equation upon Knowledge of Information System (X2), the following is Anava Test Significance and Test Regression linearity between Y with X2, $Y = 96.23 + 0.74 X2$

Source of varians	Degree Of Freedom	Some Of Squares	Mean Squares	F Count	F Table 0,05
Total	60	751.177,00			
Coefficient (a)	1	745.266,15			
Coefficient (b/a)	1	733,64	733,64	8,22	4,01
Rest	58	5.177,21			

Suitable Tuna	16	1.502,07	93,879	1,07	1,90
Error	42	3.675,15	87,503		

F_count value obtained by 8.22 while F_table with dfnumerator 1 and df denominator 58 at significance level $\alpha = 0.05$ of 4.01, it appears that the value $F_{count} > F_{table}$, thus the coefficient of regression direction Y over X1 is very significant at the level $\alpha = 0.05$. The value of F tuna suitable obtained by 1.07 while the value F_table with dfnumerator 16 and df denominator 42 at the significance level $\alpha = 0.05$ of 1.90 it appears that the value $F_{count} < F_{table}$, thus it can be concluded that the form of regression Y over X2 is linear.

3. Significance and Linearity Test of the Transformational Leadership Regression Model (Y) over the Assertiveness (X3)

The calculation and analysis of the Transformational Leadership (Y) regression equation over the Resilience (X3) has been performed, the results obtained as described in the following table.

Table Anava Test Significance and Test Regression linearity between Y with X3, $Y = 16.05 + 1.03 X3$

Source of varians	Degree Of Freedom	Some Of Squares	Mean Squares	F Count	F Table 0,05
Total	60	751.177,00			
Coefficient (a)	1	745.266,15			
Coefficient(b/a)	1	3.181,88	3.181,877	67,63	4,01
Rest	58	2.728,97			
Suitable Tuna	24	713,842	29,743	0,502	1,83
Error	34	2.015,13	59,269		

Value F_Count obtained equal to 67,63 while F_table with dfnumerator 1 and df denominator 58 at significance level $\alpha = 0,05$ equal 4,01, it appears that value of $F_{count} > F_{table}$. Dengan so coefficient of direction of regresi Y over X3 very significant at level $\alpha = 0.05$.

The value of F tuna suitable obtained by 0,502 while the value F_table with df numerator 24 and df denominator 34 at the significance level $\alpha = 0.05$ of 1.83 it appears that the value $F_{count} < F_{table}$. Thus it can be concluded that the regression form Y over X3 is linear.

4. Significance and Linearity Test of Resilience Regression Model (X3) on Knowledge of Management (X1)

As with other regression equations, calculations and analyzes of the Equalization regression equation (X3) on Knowledge of Management (X1) have been performed, the following is Anava Test Significance and Test Regression linearity between X3 with X1, $X3 = 80,744 + 0,642 X1$

Source of varians	Degree Of Freedom	Some Of Squares	Mean Squares	F Count	F Table 0,05
Total	60	518.43,000			
Coefficient (a)	1	515.041,350			
Coefficient (b/a)	1	379,880	379,880	8,40	4,01
Rest	58	2.621,770			
Suitable Tuna	15	1.015,589	67,71	1,8	1,92
Error	43	1.606,181	37,35		

Value F_{count} obtained by 8.40 while F_{table} with $df_{numerator}$ 1 and $df_{denominator}$ 58 at significance level $\alpha = 0.05$ of 4.01, it appears that the value $F_{count} > F_{table}$. Dengan so the coefficient of regression direction Y over X1 is very significant at the level $\alpha = 0.05$. F_{count} value obtained by 1.81 while the value F_{table} with $df_{numerator}$ 15 and $df_{denominator}$ 43 at the level of significance $\alpha = 0.05$ of 1.92 it appears that the value $F_{count} < F_{table}$. Thus it can be concluded that the form of X3 regression over X1 is linear.

5. Significance and Linearity Test of Comparative Regression Model (X3) on Knowledge of Information System (X2)

The calculation and analysis of the Equalization regression equation (X3) on Knowledge of Information System (X2) has been done, the following is Anava Test Significance and Test Regression linearity between X3 with X2, $X3 = 80,60 + 0.59 X2$

Source of varians	Degree Of Freedom	Some Of Squares	Mean Squares	F Count	F Table 0,05
Total	60	518.043,000			
Coefficient (a)	1	515.041,350			
Coefficient (b/a)	1	459,937	459,937	10,50	4,01
Rest	58	2.541,713			

Suitable Tuna	16	692,584	43,29	0,98	1,91
Error	42	1.849,129	44,03		

F_Count value obtained by 10.50 while F_table with dfnumerator 1 and df denominator 58 at significance level $\alpha = 0.05$ of 4.01, it appears that the value $F_{count} > F_{table}$. So the regression coefficient Y over X1 is very significant at the level of $\alpha = 0,05$. Value F_count obtained by 0.98 while the value F_table with dfnumerator 15 and df denominator 43 at the level of significance $\alpha = 0.05$ of 1.91 it appears that the value $F_{count} < F_{table}$. Thus it can be concluded that the regression form X3 over X2 is linear. Value to know for the next calculation is a simple correlation coefficient matrix between variables as follows:

		Transformational leadership	Knowledge of Management	Knowledge of Information Systems	Assertiveness
leadership	Pearson Correlation	1	.321*	.352**	.734**
	Sig. (2-tailed)		.012	.006	.000
	N	60	60	60	60
Knowledge of Management	Pearson Correlation	.321*	1	.567**	.356**
	Sig. (2-tailed)	.012		.000	.005
	N	60	60	60	60
Knowledge of Information Systems	Pearson Correlation	.352**	.567**	1	.391**
	Sig. (2-tailed)	.006	.000		.002
	N	60	60	60	60
Assertiveness	Pearson Correlation	.734**	.356**	.391**	1
	Sig. (2-tailed)	.000	.005	.002	
	N	60	60	60	60

*. Correlation is significant at the 0.05 level (2-tailed).

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

Then the path structural model and the result of path analysis calculation along with its correlation value (number in brackets) like the picture follow:

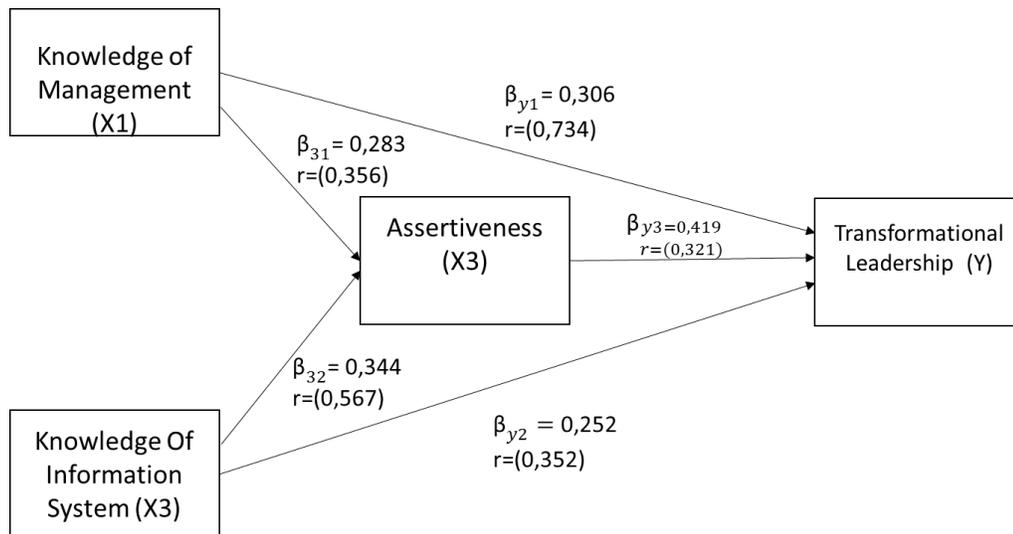
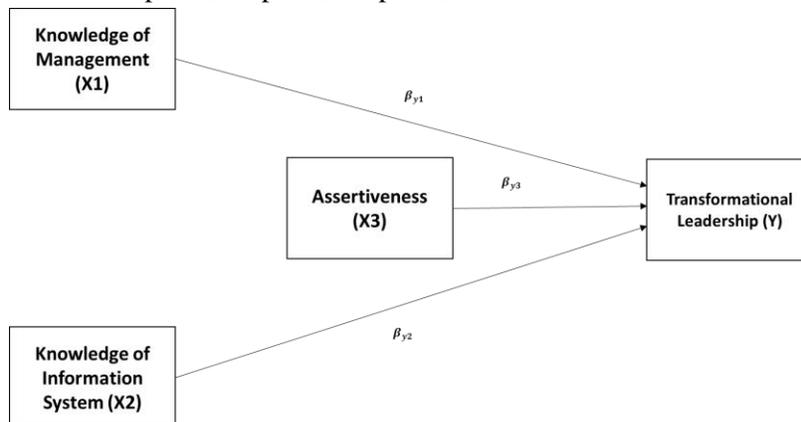


Figure 1 Structural Relationship Model among Variables Result of Calculation of Path Analysis

From the above path analysis diagram, obtained five (5) path coefficients, namely: β_{y1} , β_{y2} , β_{y3} , β_{31} , β_{y32} which is divided into 2 sub-structural models, namely:.

Model Sub Structure 1

Sub Structure 1 consists of Knowledge of Management variables (X1), Knowledge of information systems (X2), Assertiveness (X3) and Transformational Leadership (Y). The equation model of structure is: $Y = p_{YX_1} + p_{YX_2} + p_{YX_3}$



Knowledge of Management (X1), Knowledge of Information Systems (X2) and Assertiveness (X3) together have an influence on transformational leadership (Y).

Source of variance	Degree Of Freedom	Some Of Squares	Mean Squares	F Count	F Table 0,05
Total	59	5.910,850			
Regression	3	3.218,244	1.72,748	22,311**	2,76
Residual	56	2.692,606	48,082		

** Very significant, $F_{Count} (22,311) > F_{table} (2,76)$ at $\alpha=0,05$, then H_0 rejected and H_1 accepted.

Knowledge of management (X1), knowledge of information system (X2) and assertiveness (X3) partially have influence to transformational leadership (Y)

To see the magnitude of the effect of variables used t test, whereas to see the magnitude of influence used the number β or standardized coefficients below:

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	13.778	16.579		.831	.409
Knowledge of Management	.824	.287	.306	2.876	.006
Knowledge of Information System	.633	.272	.252	2.328	.024
Assertiveness	.749	.179	.419	4.177	.000

a. Dependent Variable: LeadershipTransformational

Based on the output of SPSS obtained t_{count} knowledge of management of 2.876 and t_{table} (> 1.671) with a significance level below 0.05 of 0.006. And t_{count} information system knowledge of 2.328 and t_{table} (> 1.671) with a significance level below 0.05 is 0.024. And t_{count} Assertivness equal to 4,177 and t_{table} ($> 1,671$) with significance level below 0,05 that is 0.000

Direct effect path coefficient value and its significance for structure 1

Path	path coefficient	t_{count}	t_{table} ($\alpha=0,05$)	Information
βy_1	0,306	2,876	1,67	Coefficient Significance
βy_2	0,252	2,328	1,67	Coefficient Significance
βy_3	0,419	4,177	1,67	Coefficient Significance

After analyzing the causal structural model, the result is used to test the hypothesis and measure the percentage of direct or indirect influence between variables. The conclusion of the proposed hypothesis is then drawn based on the calculation of path coefficients and significance for each path under study. The decision result on the hypothesis in sub-structure 1 is proposed as follows.

Hypothesis 1: Knowledge of Management (X1) has a direct positive effect on Transformational Leadership (Y)

The tested hypothesis was $H_0: \beta_{y1} \leq 0$ and $H_1: \beta_{y1} > 0$. From the calculation result, the coefficient value of path $\beta_{y1} = 0,306$ with $t_{count} = 2.876$ and $t_{table} = 1.67$ at $\alpha = 0,05$ because $t_{count} > t_{table}$, then reject H_0 , and accept H_1 thus there is a positive direct effect of Knowledge Management (X1) on Transformational (Y).

Hypothesis 2: Knowledge of Information System (X2) has a direct positive effect on Transformational Leadership (Y)

The tested hypothesis is: $H_0: \beta y_2 \leq 0$ and $H_1: \beta y_2 > 0$. From the calculation result, the coefficient of path $\beta y_2 = 0,252$ with $t_{count} = 2,328$ and $t_{table} = 1.67$ at $\alpha = 0,05$ because $t_{count} > t_{table}$

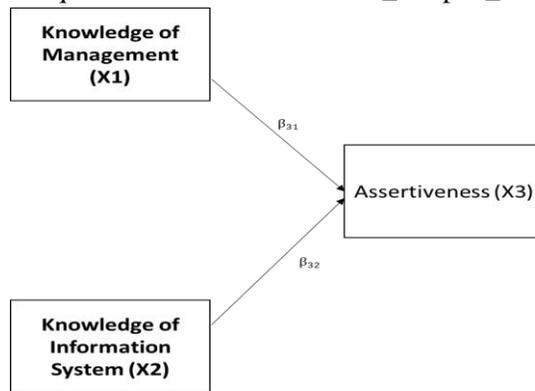
)>t_{table}, then reject H₀, and accept H₁, thus there is a positive direct effect of Knowledge of Information System (X2) on Transformational (Y).

Hypothesis 3: Assertiveness (X3) have a direct positive effect on Transformational Leadership (Y)

The tested hypothesis is: H₀: $\beta_{y3} \leq 0$ and H₁: $\beta_{y3} > 0$. From the calculation results obtained coefficient of path $\beta_{y3} = 0,419$ with t_(count) = 4.177 and t_{table} = 1.67 on $\alpha = 0.05$ because t_(count) > t_{table}, then reject H₀, and accept H₁, thus there is a positive direct effect of assertiveness (X1) on Transformational (Y).

Model Sub Structure 2

Sub-structure 2 consists of Knowledge of Management (X1), Knowledge of Information System (X2), and Assertiveness (X3), with equation model as follows: $X_3 = \beta_{31} X_1 + \beta_{32} X_2$



Knowledge of management (X1) and knowledge of information system (X2) combined have influence toward assertiveness (X3). From the calculation obtained table as follows:

Source of variance	Degree Of Freedom	Some Of Squares	Mean Squares	F Count	F Table 0,05
Total	59	3.001,650			
Regression	2	2.462,674	269,488	6,237	3,15
Residual	58	603,661	43,205		

** Very significance whereas $F_{count} (6,237) > F_{table} (3,15)$ with at $\alpha=0,05$, then H_0 rejected and H_1 accepted

Knowledge of management (X1) and knowledge of information system (X2) have partial influence toward assertiveness (X3).

To see the magnitude of variable influence between knowledge of management (X1) and knowledge of information system (X2) individually or partially to assertiveness (X3) used t test, while to see the magnitude of influence used the number β or standardized coefficients below:

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	74.924	4.364		17.168	.000

Knowledge Management of	.411	.171	.283	2.402	.020
Knowledge Information System of	.520	.178	.344	2.923	.005

a. Dependent Variable: Assertiveness

Based on the output of SPSS obtained t_{count} management knowledge 2.402 and t_{table} (> 1.671) with a significance level below 0.05 of 0.020. And t_{count} information system knowledge 2.923 and t_{table} (> 1,671) with significance level below 0.05 is 0.05

Direct effect path coefficient value and its significance to structure 2

Path	path coefficient	t_{count}	t_{table} ($\alpha=0,05$)	Information
β_{31}	0,283	2,402	1,67	Coefficient Significance
β_{32}	0,344	2,923	1,67	Coefficient Significance

The decision result on the hypothesis in sub-structure 2 is proposed as follows.

Hypothesis 4: Knowledge of Management (X1) has a direct positive effect on the Assertiveness (X3)

The tested hypothesis is: $H_0: \beta_{31} \leq 0$ and $H_1: \beta_{31} > 0$. From the calculation result obtained coefficient of path $P_{31} = 0,283$ with $t_{(count)} = 2,402$ and $t_{table} = 1,67$ at $\alpha = 0,05$ because $t_{(count)} > t_{table}$, then reject H_0 , and accept H_1 thus there is a direct positive effect of Assertiveness (X1) against the Membership (X3).

Hypothesis 5: Knowledge of Information System (X2) has a direct positive effect on Assertiveness (X3)

The tested hypothesis is $H_0: \beta_{32} \leq 0$ and $H_1: \beta_{32} > 0$. From the calculation result, the coefficient value of path $P_{32} = 0,344$ with $t_{(count)} = 2,923$ and $t_{table} = 1,67$ at $\alpha = 0,05$ because $t_{(count)} > t_{table}$, then reject H_0 , and accept H_1 thus there is a direct positive influence Knowledge of Information System (X2) to Assertiveness (X3)

From the above calculation steps, the calculation of the whole structure can be summarized as follows:

Path	path coefficient	t_{count}	t_{table} ($\alpha=0,05$)	Information
β_{y_1}	0,306	2,876	1,67	Coefficient Significance
β_{y_2}	0,252	2,328	1,67	Coefficient Significance
β_{y_3}	0,419	4,177	1,67	Coefficient Significance
β_{31}	0,283	2,402	1,67	Coefficient Significance
β_{32}	0,344	2,923	1,67	Coefficient Significance

DISCUSSION

Effect of management knowledge on transformational leadership

Based on the results of hypothesis testing shows that management knowledge has a direct positive influence on transformational leadership. Test results show t_{count} management knowledge of 2.876 > from t_{table} (1.671) with a significance level below 0.05 of 0.006. So the hypothesis that there is a direct positive effect of management knowledge on transformational leadership, is accepted. While the coefficient of the path shows the results of 0.306. This suggests that management knowledge has a positive direct influence on transformational leadership. This means that higher management knowledge will be followed by higher transformational leadership. The results of this study correspond to the following theories:

According to Kinicki and Fugate knowledge management is the knowledge and skill of a leader so as to create transformational leadership behaviors. Jones and George define management as activities of planning, organizing, leading, and controlling human resources and other resources to achieve organizational goals efficiently and effectively. Meanwhile, according to Fahmi management is the process of planning, organizing, leadership and control efforts of members of the organization and the use of all organizational resources to achieve the goals set. According Sudaryono management is a process of completing activities efficiently with or through others. Meanwhile, according to Ridhotulloh management is a process of planning, organizing, coordinating, and controlling human resources to achieve effective and efficient targets. Furthermore, Henry Fayol in Winardi mentions, as a result of the analysis of the opinion of the previous opinion, draws the conclusion that management is a process within the organization to achieve success consisting of technical, commercial, financial, security, accounting and managerial activities (planning, organization, command, coordination, and supervision). Kotter complements that management and leadership can create changes. Strong leadership can disrupt a regular planning system and ignore the management hierarchy. Based on research by T. Ha-Vikström and J. Takala, University of Vaasa, Vaasa, Finland. The results showed that management knowledge proved to have an effect on transformational leadership.

Accordingly, the results of this study are in accordance with the theoretical studies and relevant research results, so it can be said that management knowledge has a direct positive effect on transformational leadership. That is, someone who has high management knowledge then the level of transformational leadership will be better.

The influence of information systems knowledge on transformational leadership

Based on the results of hypothesis testing shows that knowledge of information systems have a direct positive influence on transformational leadership. To calculate the amount of influence, t test is used, while to see the magnitude of influence used β number or standardized coefficients. The test results show t_{count} knowledge of information systems of 2.328 > from t_{table} (1.671) with a significance level below 0.05 of 0.024. So the hypothesis that there is a direct positive influence of information systems knowledge on transformational leadership, is accepted. While the correlation coefficient value shows the result of 0.352. This suggests that knowledge of information systems has a positive direct effect on transformational leadership. That is, the higher knowledge of information systems will be followed by higher transformational leadership. The results of this study are in accordance with the following theories:

Kinicki and Fugate assert that effective leadership can be influenced by four types of leadership performances: task-oriented, relationship-oriented, passive, and transformational. According to Laudon and Laudon information systems are components that work together to collect, process, store and disseminate information in order to support decision making, coordination, control, problem analysis

and visualization within an organization. Then Valacich mentioned that the information system is a combination of hardware, software, and telecommunication networks as well as people who build and use to collect, create, and distribute data useful for the benefit of the organization. Meanwhile, according to Robbins and Coulter Management information system is a system used to facilitate managers in meeting the needs of information on a regular basis. Next according to McLeod management information system (MIS) is a computer-based system that provides information to meet user needs. O'Brien complements with his theory that information systems are a combination of people, hardware, software, communication networks, and data sources organized in such a way as to gather, transform, and disseminate information within an organization. So is Haag et. al. complete the definition of information systems as something related to the planning, development, management, and use of information technology tools to help people perform all tasks related to information processing and management. Based on the research of C. B. Crawford and C. Sue Strohkirch of Fort Hays State University, 2000. The results show that innovation has a significant relationship with transformational leadership. Innovation is inseparable from the use of information systems as an infrastructure to improve the performance and competitiveness of the company.

Thus, the results of this study in accordance with theoretical studies and relevant research results, so it can be said that the knowledge of information systems have a direct positive effect on the leadership transformational manager because it is related to the knowledge needed in carrying out the tasks and responsibilities.

Influence of assertiveness toward transformational leadership

Based on the results of hypothesis testing shows that assertiveness has a positive direct influence on transformational leadership. To calculate the amount of influence, t test is used, while to see the magnitude of influence used β number or standardized coefficients. Test results show t_{count} information system information of $4.177 >$ from t_{table} (1.671) with a significance level below 0.05 ie 0.000. Hence the hypothesis that there is a direct positive effect of assertiveness on transformational leadership is accepted. While the correlation coefficient value shows the result of 0.321. This suggests that assertiveness has a positive direct effect on transformational leadership. That is, the higher the assertiveness will be followed by the higher transformational leadership. The results of this study correspond to the following theories:

According to Colquitt, Lepine and Wesson assertiveness is one of the personality traits among several traits belonging to the extraversion group, in addition to other traits such as talkative, sociable, passionate, bold and dominant. Extraversion itself is one of five domains incorporated in the "Big Five" taxonomy of personality, the other four domains are Conscientiousness, Agreeableness, Neuroticism and Openness. Goleman stated that assertiveness is expressing concern and feeling without anger and passivity. Herbert Frensterhem affirmed his assertiveness as an attitude of not feeling fear and anxiety. Characteristic attitudes of assertive people do not have the difficulties of behaving such as: (1) expressing thoughts and feelings through words and actions, for example: this is who I am, this is what I feel and what I want; (2) communicating with others, whether with strangers, friends, family and in the process of communicating relatively openly, honestly and properly; (3) maintaining integrity and consistency in situations, wherever and whenever will be able to always be assertive, not applying double-standard assertiveness to different situations; (4) face-to-face, hold talks, have an active view of life; (5) know what to do and be able to carry on without worrying about rejection, wrath, criticism; (6) realize that can not always win and accept limitations but try to cover up by trying to develop and always learn from the environment. Then Paterson says that assertiveness is a communication style that can be used in all situations, the other three are passive, aggressive, and passive-aggressive styles.

Everyone has all three elements of that style, unconsciously one of the styles will become dominant formed due to the habits, needs and character of the person concerned. While Potts said that assertiveness is a behavior to seek the achievement of mutually beneficial two parties agreement and satisfy both parties. The understanding presented by Potts is more of a compromise between the two parties for the achievement of a negotiation in order to achieve the goal. Virtue adds that assertiveness is a way to communicate feelings and needs while respecting the rights of others. Virtue provides an understanding of the need for self-disclosure but also respects the feelings and rights of others. Opinions are reinforced by Eshelman who says that assertiveness is a personality trait that is not always shared by everyone as well as extraversion or stinginess. Based on research by Lopes Corolne, J., Ph.D., August 2013, The Big Five Factors, Transformational Leadership, and Transactional Leadership, it shows that there is a significant relationship between personality and transformational leadership.

Thus the results of this study in accordance with theoretical studies and relevant research results, so it can be said that assertiveness have direct positive effect on transformational leadership as related to communication behavior in carrying out duties and responsibilities as a leader in order to achieve corporate goals.

Effect of management knowledge on the assertiveness

Based on the results of hypothesis testing shows that management knowledge has a direct positive influence on assertiveness. To calculate the amount of influence, t test is used, while to see the magnitude of influence used β number or standardized coefficients. The test results show t_{count} management knowledge of 2.402 > from t_{table} (1.671) with a significance level below 0.05 of 0.020. Hence the hypothesis that there is a direct positive effect of management knowledge on assertiveness is accepted. While the correlation coefficient value shows the result of 0.356. This suggests that management knowledge has a direct positive effect on assertiveness. This means that higher management knowledge will be followed by higher transformational leadership. The results of this study in accordance with some of the following theories:

According to Kinicki and Fugate knowledge management is a knowledge and skills of a leader so as to create the behavior of transformational leadership. Leadership behavior is also influenced by a combination of Knowledge & Skills, Task Oriented Traits, Interpersonal Attributes and Demographics. Jones and George define management as activities of planning, organizing, leading, and controlling human resources and other resources to achieve organizational goals efficiently and effectively. Hughes, Ginnett and Curphy provide theoretical support that in communicating is always based on the intention or purpose, where the intention or purpose is a reflection of the knowledge possessed. Littlejohn, Robbins and Foss point out that assertiveness is constructive behavior by communicating verbally or nonverbally to control and retain personal rights. Supported by Paterson who states that Assertiveness as a communication style that can be used in all situations, the other three styles are passive style, aggressive style, and passive-aggressive style. While Potts said that assertiveness as a behavior to seek the achievement of mutually beneficial two parties agreement and satisfy both parties. Virtue further states that assertiveness is a way to communicate feelings and needs while respecting the rights of others. Cawood adds that assertiveness is an expression of mind, feeling, necessity, or rights without an unreasonable, direct, honest, and righteous anxiety. Eshelman also mentions that Behavior assertiveness is a personality trait that is not always owned by everyone as well as extraversion or stinginess. Robbins and Coulter complete the claim that the conditions occurring in certain groups of people encourage people to be tough, confrontational, decisive, and competitive rather than gentle and melancholy. Furthermore Littlejohn explains that assertiveness can be defined as defending their rights without disturbing the rights of others. Based on the research of M.Hautala (Department of Management,

University of Vaasa, Vaasa, Finland) in 2006, about the relationship between management knowledge and assertiveness. The results showed that there is a relationship between personality with management and leadership. According to the leader (self-rating) preference, extroverted, intuitive and perceiving preferences have a positive relationship to management and leadership. In this case assertiveness is one form of behavior in the extraversion group.

Thus, the results of this study in accordance with theoretical studies and relevant research results, so it can be said that knowledge management can improve assertiveness. That is, knowledge management is a stimulus and reinforcement that can generate behavior assertively in leadership.

Effect of information system knowledge on assertiveness.

Based on the results of hypothesis testing shows that knowledge of information systems have a direct positive effect on assertive behavior. To calculate the magnitude of the effect, used t test, while to see the magnitude of the influence used the number β or standardized coefficients. Test results show t_{count} management knowledge of 2.923 > from t_{tabel} (1.671) with a significance level below 0.05 is 0.005. Hence the hypothesis that there is a direct positive influence of knowledge of information systems on assertiveness is accepted. While the correlation coefficient value shows the result of 0,567. This suggests that knowledge of information systems has a direct positive effect on assertiveness. That is, the higher knowledge of information systems will be followed by the higher assertiveness. The results of this study are consistent with the following theories:

Kinicki and Fugate assert that effective leadership can be influenced by four types of leadership behaviors: task-oriented, relationship-oriented, passive, and transformational, in addition to situational factors that are external factors of behavior leader. Colquitt also mentions that there are four factors that affect performance in the organization, namely: (1) organizational mechanisms include organizational structure and culture; (2) a group mechanism that includes leadership behaviors and styles, strengths and influence of leadership, processes and characteristics; (3) individual characteristic includes personality and cultural values and abilities; (4) individual mechanism that includes job satisfaction, stress, motivation, trust, justice, ethics, learning and decision making. Kinicki and Fugate assert that Intellectual Stimulation is a leader behavior that encourages followers to get out of the old paradigm in looking at a problem, so get a new perspective to create innovation and creativity in solving organizational problems. According to Laudon and Laudon information systems Information systems are components that work together to collect, process, store and disseminate information in order to support decision making, coordination, control, problem analysis and visualization within an organization. In line with Laudon's opinion, Valacich mentioned that the information system is a combination of hardware, software, and telecommunication networks as well as people who build and use to collect, create, and distribute data useful for the benefit of the organization. Meanwhile, according to Robbins and Coulter information system is a system used to facilitate managers in meeting the needs of information on a regular basis. This understanding focuses more on how managers need information regardless of how the information is obtained and how it is processed. Furthermore, management information system according to McLeod is a computer-based system that provides information to meet user needs. Affirmed by O'Brien that information systems are a combination of people, hardware, software, communication networks, and data sources organized in such a way as to collect, transform, and disseminate information within an organization. Further, Haag et. al. states that the management information system is something related to the planning, development, management, and use of information technology tools to help people perform all tasks related to information processing and management. Based on research conducted by Nasiopoulos K. Dimitrios, Damianos P. Sakas and D.S. Vlachos. University of Peloponnese, Department of Computer Science and

Technology, Tripolis 22100, Greece in 2012. The results show that MIS implements are a modern way of having a strategic role for the competitiveness of firms. The strategic role is reflected in research and development with the help of Dynamic Simulation Model greatly assist effectively in strategic planning and corporate management.

Thus, the results of this study in accordance with theoretical studies and relevant research results, so it can be said that knowledge information systems can improve managerial assertiveness. That is, knowledge of a qualified information system provides a very good stock to assertive behavior in leadership.

CONCLUSION

Based on data analysis and statistical calculation, the result of research indicate that: (1) there is positive direct influence of management knowledge toward transformational leadership, (2) there is positive direct influence of information system knowledge on transformational leadership, (3) There is a positive direct influence assertiveness toward transformational leadership. (4) there is a direct positive effect of management knowledge on assertiveness, (5) there is a positive direct effect of information system knowledge on assertiveness.

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