The Influence of Leadership Style and Empowerment on Efficiency Virtual Teams Mediated by Trust

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Abstract

This research aims to analyze the influence of leadership style and empowerment on the virtual efficiency of it industry employees in Indonesia. Analyzing the trust's role in mediating transformational leadership and transactional leadership and empowerment towards the virtual efficiency of the IT industry employee in Indonesia. The data analysis method used in this study is the structural equation model (SEM) using the Lisrel program. This research uses an inferential statistical approach, namely testing the influence hypothesis between variables and Structural Equation Modeling (SEM) where variable trust plays a role in mediating the influence of leadership and empowerment on employee performance and job satisfaction. The results of this study show that the Judge must make a decision that is wise and fair in handling each case, especially with regard to notary deed. Every deed made by a Notary must meet: material and formal needs. The notary must be ready and responsible for every deed product he makes, whether civil, criminal or administrative.

I. Introduction

The current Covid-19 pandemic is endemic in almost all corners of the world. Based on data from the World Health Organization (WHO) Coronavirus (Covid-19) dashboard on December 22, 2021, it was recorded that the accumulation of positive confirmed cases was 424,822,073 and the total number of deaths was 5,890,312. With these conditions, the government in countries affected by Covid-19 is preventing the virus from spreading more widely. One of them is by implementing the Work From Home (WFH) policy.

The WFH policy made many changes in working methods. In policy WFH does work virtually that makes the intensity of face-to-face becomes less than meeting face-to-face. WFH's policy in the Digital Age 4.0, requires companies to constantly change and adapt. One of them is the adaptation of technology in business. Digital transformation is the most likely option for companies. It is powered by virtualization technology (Sanchez, 2017).

The outbreak of this virus has an impact of a nation and Globally (Ningrum *et al*, 2020). The presence of Covid-19 as a pandemic certainly has an economic, social and psychological impact on society (Saleh and Mujahiddin, 2020). Changes due to this pandemic also have good for companies to be more preventive to prepare for the future of the organization. It's just that the role of leaders in digital transformation is the most important thing during the Covid-19 pandemic. A leader in the age of digital transformation must understand that they must invest in the team that makes the technology useful. A leader must understand that digital transformation has become a necessity and cannot ignore digital transformation. Technological advances have supported

the tendency of geographically dispersed working groups to collaborate through technology (Algesheimer, Dholakia, & Gurău, 2011).

Advances in information and communication technology in the workplace have allowed organizations to create virtual teams that cover physical and time limits (Colbert, Yee, & George, 2016). Organizations view virtual teams as tools to quickly and efficiently address complex problems and meet unique customer demands (Minton-Eversole, 2012), but such teams face many challenges stemming from the technologically powered and spatially distributed nature of virtual work (Foster, Abbey, Callow, Zu, & Wilbon, 2015). Because leaders play an important role in helping their teams face and adapt to challenges (Bell & Kozlowski, 2002; Gilson, Maynard, Jones Young, Vartiainen, & Hakonen, 2015). Virtual teams will be effective if guided by leaders who can provide a clear process for the team so as to have a positive effect on team performance.

In addition to the triggers of organizational life virtualization and digital transformation of the processes mentioned above (Zúñiga Ramirez et al., 2016) and stakeholder interconnectedness as co-creators of value (Martinez-Cañas et al., 2016). Pangil and Moi Chan (2014) agree that team effectiveness is critical to the success of virtual teams, but behavioral or other factors that make teams effective are needed to reconcile theoretical developments and to provide researchers with new avenues for further study. This phenomenon is what prompted us to research about "Leadership Style and Empowerment towards Efficiency of Virtual Team mediated by trust".

This research aims to analyze the influence of leadership style and empowerment on the virtual efficiency of it industry employees in Indonesia. Analyzing the trust's role in mediating transformational leadership and transactional leadership and empowerment towards the virtual efficiency of the IT industry employee in Indonesia.

II. Research Method

The data analysis method used in this study is the structural equation model (SEM) using the Lisrel program. According to Ferdinand (2000), SEM is basically a set of statistical techniques that allow simultaneous testing of a series of relatively "complicated" relationships. SEM is a multivariate technique that combines aspects of multiple regression and factor analysis to estimate a series of simultaneous dependency relationships (Hair et al, 2010). Before analyzing the hypothesis, the overall fit model should be assessed first to ensure that the model can describe all causal influences.

This research uses an inferential statistical approach, namely testing the influence hypothesis between variables and Structural Equation Modeling (SEM) where variable trust plays a role in mediating the influence of leadership and empowerment on employee performance and job satisfaction. The measurement scale is likert 1-5. The number of respondents to the study was 305 respondents.

III. Results and Discussion

3.1 Results
Data Analysis Results
a. Descriptive Stastic

Table 1. Descriptive Statistics

No	Variable	Mean	Std. Deviasi	1	2	3	4	5	6
1	Transformational Leadership	3,927	0,795	1					
2	Transactional Leadership	2,762	1,405	0,222**	1				
3	Empowerment	4,041	0,873	0,563***	0,294***	1			
4	Trust	4,252	0,583	0,436***	0,069	0,685***	1		
5	Employee Performance	4,346	0,576	0,404***	0,075	0,636***	0,872***	1	
6	Job Satisfaction	4,325	0,622	0,374***	-0,062	0,501***	0,797***	0,862***	1

Descriptive statistics describe the average and variation of respondents' answers to research variables. Overall, respondents gave a positive attitude (agree / strongly agree) on empowement, trust, employee performance and job satisfaction. Nevertheless, respondents gave a more positive attitude to transformational leadership than transaction leadership. Variations in respondents' attitudes on transaction leadership were higher indicated by a standard deviation value of 1,405 compared to variations in answers to transformational leadership (0.795). The results of the correlation analysis between variables show that there is a significant positive relationship between variables unless the correlation between transaction leadership and variable trust, employee performance and job satisfaction is not significant.

b. Measurement Model Evaluation

Evaluation in SEM is two step approach, Hair et al (2010) where the evaluation starts from the evaluation of the measurement model or confirmatory factor analysis (CFA) to achieve an acceptable goodness of fit and then continued the evaluation of structural models. Measurement model evaluation (CFA) means the evaluation of causality between a variable and its measurement item. According to Hair et al (2010), the size used is Loading Factor (LF) above 0.70, Construct Reliability (CR) above 0.70 and Variance Extracted (VE) above 0.50. Here are the data processing results.

Table 2. Measurement Model Evaluation Results

Variable	Number of Items/ Dimensions	Loading Factor	Construct Reliability	Variance Extracted
Transformational Leadership	3	0,769 - 0,797	0,805	0,580
Transactional Leadership	2	0,864 - 0,907	0,879	0,785
Empowerment	4	0,767 - 0,908	0,887	0,662
Trust	6	0,741 - 0,868	0,917	0,648
Employee Performance	10	0,716 - 0,846	0,946	0,637
Job Satisfaction	12	0,745 - 0,838	0,950	0,614

Overall CFA model evaluation is acceptable where loading factor measuring items above 0.70, construct reliability has a value above 0.70 and AVE varabel research above 0.50 which shows that variations of items have convergent validity that is acceptable. Transformational leadership related to the attitude of superiors is willing to provide time to give time to teach and train employees, treat employees as individuals and superiors build respect with fellow employees. Transactional leadership is closely related to the attitude of the boss explaining what can be expected to be received as well as the attention of the boss in handling the problem. Variable empowerment is related to empowerement power, empowerment knowledge, empowerment information and empowerment rewards. Variable trust is closely related to employees having high integrity, reliable in work, work team members can be trusted, mutual respect and respect for fellow team members, growing confidence in work. Variable job performance related to the contribution of employees to the company, the performance produced, willing to spend extra time completing work, the existence of enthusiastic attitudes, initiatives, hard work with a high level of productivity. Job satisfaction related to employees get praise for achievement, satisfaction with a good work environment, employment relationships, salaries, opportunities to develop, and satisfaction with sufficient time to complete work and satisfaction with clear work patterns.

c. Structural Model Evaluation

Evaluation of structural models deals with testing research hypotheses of influence between variables. The evaluation of structural models is seen from the significance of the influence, namely the statistical t value above 1.96 or p-value below 0.05.

Table 3. Hypothesis Testing Results

Hypothesis	Hypothesis Statement	Path coefficient	T Statistic	Information
H1	There is a Leadership Influence on Empowerement	0,728***	6,537	Hypothesis Accepted
H1a	Transformational Leadership affects empowerment	0,529***	7,922	Hypothesis Accepted
H1b	Transactional Leadership Influence on Empowerment	0,172**	2,955	Hypothesis Accepted
H2a	Transformational Leadership Influence on Trust	0,095	1,465	Hypothesis Rejected
H2b	Transactional Leadership Influence on Trust	-0,166**	-3,214	Hypothesis Accepted
H3	There is an Empowerement Effect on trust	0,680***	8,979	Hypothesis Accepted
H4a	There is an Influence between Trust and Virtual Team Efficiency (Performance)	0,906***	14,898	Hypothesis Accepted
H4b	There is an Influence between Trust and Virtual Team Efficiency (Satisfaction)	0,837***	12,873	Hypothesis Accepted
H5a	There is an Influence between Leadership Transformational and Performance Employee mediated by Trust	0,412***	8,615	Hypothesis Accepted
H5b	There is an Influence between Leadership Transformational and Satisfaction Employee mediated by Trust	0,381***	6,441	Hypothesis Accepted
H5c	There is an Influence between Transactional Leadership and Trust-mediated Performance Employees	-0,044	-0,805	Hypothesis Rejected
H5d	There is an Influence between Transactional	-0,041	-0,804	Hypothesis

				Rejected
	Leadership and Trust-mediated Employee Satisfaction			
H6a	There is an Influence between Empowerement and Trust-mediated Performance Employees	0,615***	8,615	Hypothesis Accepted
H6a	There is an Influence between Empowerement and Trust-mediated Satisfaction Employees	0,569***	8,162	Hypothesis Accepted

*** sig 1% ** sig 5%

The results of the first hypothesis test showed that variable leadership has a significant effect on empowerment which means that the better the leadership style of the boss, it will affect empowerment. However, it is seen that the influence of transformational leadership style (path coefficient = 0.529) contributes to a higher increase in empowerment than transaction leadership style (path coefficient = 0.172).

d. Model Kindness Evaluation (Goodness of Fit)

The overall evaluation of models in Structural Equation Modeling is seen from the value of goodness of fit by a number of sizes. Here are the data processing results.

Table 4. Goodness of Fit

Size Goodness of Fit	Criterion	Estimated Results	Information
p-value Chi Square	p> 0,05	0.000	Poor Fit
RMSEA	< 0,08	0,106	Poor Fit
Goodness of Fit (GFI)	> 0,90	0,675	Poor Fit
Normed Fit Index (NFI)	> 0,90	0,949	Good Fit
Non Noremed Fit Index (NNFI)	> 0,90	0,958	Good Fit
Comparative Fit Index (CFI)	> 0,90	0,961	Good Fit
Incremental Fit Index (IFI)	> 0,90	0,961	Good Fit
Relative Fit Index (RFI)	> 0,90	0,944	Good Fit
Root Mean Square Residual (RMR)	< 0,10	0,046	Good Fit
Standardized RMR	< 0,10	0,074	Good Fit

Goodness of fit in SEM analysis developed several measures to evaluate the model as a whole. The results of the evaluation showed that most of the size of the goodness of fit showed that the model was acceptable. Absolute GoF sizes such as Chi Square, RMSEA, GFI tests show that the model does not match the data, but other sizes RMR and Standardized RMR show the model matches the data (good fit). Incremental GoF sizes such as NFI, NNFI, CFI, IFI and RFI show good models.

3.2 Discussion

The results obtained for the proposed model have found that the Virtual Empowerment Team (EVT) is very justified where the static t is above 1.96 which is (β = 0.615; t = 8,615) so that there is a significant influence between empowerment and satisfaction mediated by tust (H6a). similarly, the performance of employees mediated by trusts is also strongly influenced by employee empowerment (H6b) where the results show a significant influence and of course jipotesis is accepted with the value of track coefficients and t statistic (β = 0.569; t = 8,162)

These results coincide with previous work (Gondal and Khan, 2008) which measured the impact of team empowerment on VT performance and showed that there is a positive relationship between team empowerment and team performance in virtual teams. This finding certainly goes further and states that the above can be achieved with the Trust. Like other research (Kirkman et al., 2004), empowerment in virtual teams can work as an alternative to leadership. Thus, activities usually performed by a team leader can be done by members (Kerr and Jermier, 1978) by contributing with joint creation. The behavior of these team members due to the empowerment of team members by the leader has a direct and positive relationship with trust. It is considered a trust-building attribute. In empowerment, commitment is only achieved when the team has a shared vision and honest and orderly communication with leaders.

However, not so with transactional leadership of employee satisfaction mediated by trust (H5d) with a statistical value of -0.804 indicates this relationship is not significant so that the hypocesion is rejected. Similarly, employee performance is not sufficiently influenced by transactional leadership style even though it is mediated by trust (H5c) with a statistical value of -0.805

Trust is a variable that is very influential in increasing the effectiveness of virtual teams in relation to performance (H4a), as well as employee satisfaction with the trust given (H4b) where the indication of statistical value t shows the value of t = 14,498 and t = 12,873 which certainly makes this nipotesis accepted.

Karawayan performance in virtual effectiveness is certainly strongly influenced by leadership, especially transformational leadership (H1 & H2). The results showed that this (leadership transformational) has a positive influence on performance (β = 0.412; t = 8,615) and employee satisfaction (β = 0.381; t = 6,441) mediated by trusts or trusts. The results obtained coincide with research by Baard et al. (2014) and show that the role of leaders is important for working in VT, especially since leaders influence the way teams face obstacles and the way teams ultimately adapt to those challenges, which is critical to the confidence generated for the future.

Therefore, transformation leaders within virtual teams should use a leadership style that generates trust as a mediating factor in the indirect effects it has on performance.

In the context of the current Covid-19 pandemic, transactional leadership is highly questionable. Don't forget that the isolation measures established by many governments have made it difficult to handle aspects such as different geographical locations, belonging to different organizations, and different economic sectors. This makes effective communication and close coordination difficult. However, the results reaffirm the theories that have been shown (Powell et al., 2004).

IV. Conclusion

The proposed model based on ipo adaptations (Gilson et al., 2015) has largely been validated using PLS-SEM analysis. Therefore, IT companies can use it as a theoretical framework when setting up human resources and management policies in terms of the efficiency of their Virtual Teams.

Trust's important role as the basis of most model variables suggests that trusts should be considered one of the most important and relevant variables, especially due to increased virtualization and teleworking during the Covid-19 pandemic. The company should be more concerned with trust and consider that all actions that strengthen leadership, empowerment, employee performance and job satisfaction must be designed with trust in mind by leaders to their employees.

Overall, respondents gave a positive attitude (agree / strongly agree) on empowement, trust, employee performance and job satisfaction. Nevertheless, respondents gave a more positive attitude to transformational leadership than transaction leadership. Variations in respondents' attitudes on transaction leadership were higher indicated by a standard deviation value of 1,405 compared to variations in answers to transformational leadership (0.795). The results of the correlation analysis between variables show that there is a significant positive relationship between variables unless the correlation between transaction leadership and variable trust, employee performance and job satisfaction is not significant.

Similarly, the evaluation of the CFA model is acceptable where the loading factor of the measurement item is above 0.70, construct reliability has a value above 0.70 and AVE varabel research above 0.50 which shows that the variation of the item has an acceptable convergent validity. Transformational leadership related to the attitude of superiors are willing to provide time to give time to teach and train employees, treat employees as individuals and superiors build respect with fellow employees.

Finally, this research can be developed into other IT companies using agile methodologies and those with good IT skills. Therefore, the results show that the increase in virtuality caused by the pandemic can be an opportunity to innovate in communication to influence performance (EVT) based on the trust of its leaders, empowering workers, paying attention to employee performance and of course job satisfaction for employees so that there is mutual trust between superiors and employees.

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