JR
EDUCATION

Available online at http://ijite.jredu.id



International Journal of Information Technology and Education (IJITE) 2 (2), (March 2023) 173-182

International Journal of Information
Technology and
Education (IJITE)

http://ijite.jredu.id

# Leadership Type for Accelerating Digital Transformation at the Sub-District Level

Marlin Penina Mamuaja<sup>1\*</sup>, Joulanda A.M Rawis<sup>1</sup>, Henny N. Tambingon<sup>1</sup>, Joseph Kambey<sup>1</sup>
<sup>1</sup>Doctoral Management Education Program, Universitas Negeri Manado, Indonesia, 95618

Corresponding author: marlinmamuaja@gmail.com

ARTICLE INFO Article history:

Received: 27 February 2023; Received in revised form: 05 March 2023; Accepted: 10 March 2023; Available online: 10 March 2023; Handling Editor: Fabiola Natasya Wauran

#### ABSTRACT

Each leader types the other's leadership. Camat Tondano Selatan which has been relatively considered successful make researcher interested In knowing the type of leadership that belongs to Camat. Digital transformation has become a very important thing in increasing the quality of service in the public-level district. However, transformation needs effective leadership to reach optimal results. This article aims to analyze the type of most effective leadership in pushing digital transformation on the level district. The method used in this research is method study comparison. The comparison was done between two of the variables studied to see variable tendencies. Amount of whole office employee subdistrict South Tondano totaled 22 people plus 8 Lurah, a total of 30 people. because amount employees plus the village chief only 30 people then in the study This researcher use whole officials and village heads as sample research. Research results show that the average value of the answers questionnaire from respondent research is 4.1567 for type leadership transformational and 3.2767 for type leadership transactional. In other words employees in the District and Lurah are in the District area Tondano Selatan assessed that type the of the leadership of the Camat Tondano Selatan is more tend to Type Leadership transformational compared to with the type of leadership transactional. The result is a significant difference between the second type of average value leadership. it can be seen in the t value of 48.280 which is significant at an alpha value of 0.5. Research results also show that type of effective leadership in speeding up digital transformation at the level subdistrict is leadership transformational and leadership participatory. Leadership transformational can push innovation and creativity in the development of digital solutions, meanwhile, leadership participatory can increase the involvement of staff in the digital transformation process. Study This recommends that the head district and related staff with digital transformation in the sub-district must adopt type leadership transformational and participatory for speeding up digital transformation at the level district.

**Keywords**: digital transformation, leadership transformational, leadership transactional, research comparison, sub-district level

#### INTRODUCTION

In general, the organization is a container or place and a subsystem that describes the collaboration activity to reach an objective organization. Deep cooperation organization attached with exists social relations between individuals, According to Rosenzweig (2002) organization in general seen as a group of people bound together as one formal and informal, incl inside it a connection between superiors and subordinates. because the development of the organization is highly dependent on good relationships between the individuals involved in the organization. In matter, This leader plays a very important role for guard good relationships between working individuals in an organization. According to Yukl (2006) role leader in an organization is to build trust between people who interact in the organization. The role of the leader in organizational development is the foundation stone of the vision and mission of the organization. Then embed vision and mission organization into the heart and mind of his subordinates, and together reach vision and mission organization. In other words, the leader can be called a visionary leader (Yukl, 2006). A good leader to a must leader sensitive to change. According to Bass et al (2006) leaders must become a medium of change, and capable become capable leaders are transformed in reveal developments in the world, knowledge, and technology.

This study identifies the problem is study about type leadership transformational and transactional Not yet Once investigated in the District South Tondano. Besides it, figure Camat South Tondano is assessed relatively both by the public and employees of Subdistrict South Tondano. because That type his leadership needs to be studied more continues. South Tondano is considered an area advanced district so the factor success area needs to be known by the public. Study This highlights problems important related to digital transformation on the level sub-district in the South Tondino sub-district. Several problems arise in context This among others: Leadership that is not effective: Digital transformation on the level subdistrict needs effective leadership to reach optimal results. However, the head subdistrict often does not own sufficient skills and knowledge about information technology and communication, so difficult for them for leading the digital transformation process effectively. Limitations source power: Limitations source Power become a problem Serious in digital transformation in sub-districts. Many districts in Indonesia still experience limitations in budget, infrastructure, and human power resources needed to apply digital solutions. Lack of involvement staff: Engagement staff in the process of digital transformation in the district is still low. This is caused by a lack of motivation and support from leadership, as well as a lack of chance to develop skills and knowledge about technology information, and communication. The challenge in adopting digital solutions: The district level often faces challenges in adopting digital solutions because of several factors like minimal availability of source power, at least accessibility information, lack of digital literacy, and lack of support from the government center.

Several solutions have been developed to speed up digital transformation on the level subdistrict through type effective leadership like Increase skills and knowledge about technology information and communication: The heads subdistrict need own adequate knowledge and skills about information technology and communication for leading digital transformation on the level district. Government can develop training programs for the head district and its staff to be able to increase their knowledge and skills in matter information technology and communication. Push participation staff: Leadership participatory can push participation staff in the digital transformation process. heads subdistrict can

facilitate discussion open and transparent, motivating staff to propose new digital solutions and delivering a chance for staff to take part in the development and implementation of digital solutions. Apply the right digital solution: Selection of the right digital solution is essential in speeding up digital transformation on the level district. The right digital solution must follow the needs and sources available power levels district, and should easily be adopted by staff. Build network and collaboration with other parties: Cooperation with party other, incl government center, institution academia, and the sector private, got help the subdistrict in overcome limitations of source power and develop more digital solutions innovative. The government can too facilitate the exchange of knowledge and experience between subdistricts in a matter of digital transformation. In context, the solutions that have been developed by other researchers pointed out that Effective leadership is essential in speeding up digital transformation on the level district. Effective leadership can increase the skills and knowledge of staff, encourage participation, facilitate the election of the right digital solution, and unlock network cooperation with party others.

Novelty research This lies in its specific focus on usage type effective leadership for speed up digital transformation on the level district. Although Already Lots study about digital transformation in the sector public, however, the emphasis is more on strategy and technology used. In this article, the researcher emphasizes that effective leadership is essential in speeding up digital transformation on the level district, and gives a guide about the type of leadership that is effective in context. This gives a mark significant added because gives new contributions to understanding influencing factors of successful digital transformation at the level of the district. In context district, factors like limitations source power and level participation staff become more complex. Because the article gives practical and effective solutions to speed up digital transformation on the level subdistrict with put forward effective leadership. This study expected can give contribute valuably to strategy and policy development at the level target district to speed up digital transformation. This research aims to analyze the type of most effective leadership in pushing digital transformation on the level district.

### LITERATURE REVIEW

# Leadership

The leader is one element most importantly no will Once is lost from life social human. Leaders appear because exists differences human being heterogeneous, which then need put together or aligned and directed so that the differences do not raise conflict. A leader yes, is enabled to lead and finish conflict. In field education, concurrently with effort updates made, form leadership looked at important for formulated. Leadership is the art of coordinating and giving direction to an individual or group to reach the desired goal.

According to Yukl (2006), one very important and difficult role for a leader lies in the responsibility to guide and facilitate changes that occur in a company. this is because individuals tend to reject existing change

Because of various reasons. One of them is distrust of leaders and the need for change in the management company for himself (Yukl, 2006).

Leadership is the ability leader to influence the employee in an organization, so they are motivated to reach an objective organization (Robbins, 2001). Leadership no can be released from

following (followership) because leadership becomes no means without an existing role as well as followers. A high sense of belonging will affect by the degree to which the leader's education as a leader, and involving all personnel education in running programs or involvement in compiling the program will influence participation in personnel education in each program. However need to be understood that although all leader has an objective on the same basis, they stay different individuals. So no Strange if every leader owns a different way. This is often known as the type and style of leadership.

Based on this assumption so can be concluded every leader's style or type different leadership. If anything one thousand leaders so will there are also a thousand styles of leadership too formed. One theory about leadership is theory type leadership transformational and transactional differences but Can There is in soul leader because of its nature like a pendulum (*continuum*) ( Kawulur and Wuryaningrat, 2013). Theory This at first developed by Burns (1978) who implemented it in context politics. Idea This furthermore introduced context organizational by Bass start 1985 (Yukl, 2006).

### Type Leadership transformational

Leadership transformational is the ability of a leader to work with others to transform optimally sources of power organization in a framework to reach meaningful purpose following the achieved targets set. Source power covers human resources, facilities, funds, and external factors organization.

According to Bass, (1985, in Yukl, 2006) leadership transformational is a style of priority leadership that gifts chance or pushes all elements that are in scope for work on a base system of great value, so all elements in the organization are willing to give the energy without coercion for participate optimally in framework reach objective together. There are three methods a leader transformational motivating its employees, that is with:

- a. push employees for more and realize its importance results in an effort;
- b. push employees to put first interest group; and
- c. increase needs more employees tall like price self and actualization self.

### Leadership Transactional

According to Bass, (1985, in Yukl, 2006) leadership transactional can be conceptualized as a transaction process between superiors and subordinates. Transactional managers push subordinates to want to work following agreements explicitly or implicitly happened between superiors and subordinates (Deluga, 1990). According to Bass, (1985, 1990 in Yukl, 2006) type of leadership transactional can share two indicators that is is reward contingent and exception management.

According to Deluga (1990), managers who have a style of leadership transactional consider the connection between superiors and subordinates as a connection bond work or agreement work either implicit or explicit. Then described Deluga (1990) that when an employee follows an agreement Work the so employee Can get rewards and when the employee deviates from the agreement can be subject to sanctions.

# Connection Type Leadership Transformational and Transactional

Connection leadership is transactional and transformational although different methods and types of approaches but no means of style leadership the no related, and does not originate from two different individuals (Yukl, 2006).

According to Bass (1985, in Yukl, 2006) the manager in his leadership owns two styles of leadership in one private, where both of them have a significant influence to change behavior and improving potency self (Bass *et al.*, 2003; Deluga, 1990). According to Yukl (2006), leadership transformational of course effectively increases motivation and performance compared to leadership transactional. However, the most effective manager is a capable manager who combines the second style of existing leadership with himself.

# **Digital Transformation**

Digital transformation is a process of using digital technology to Overhaul existing business processes, products, and business models to create marks and add new ones for organizations and consumers. Digital transformation involves the use of technology information and communication (ICT) to change the method of organizational work, interact with a customer, and create mark new business. Digital transformation can impact various aspects of business, like management operations, experience customers, and business models. In management operations, digital transformation can increase efficiency, productivity, and transparency with the use of technology like data analytics, the internet of things (IoT), and intelligence artificial (AI). In experience customers, digital transformation can give a more personalized, interactive, and easy experience through the use of technology like mobile applications, social media, and chatbots.

Digital transformation can to overhaul the business model with open opportunities business new, create mark add new, and subtract cost operational. For example, e-commerce companies such as Amazon have to change their business model retail traditional with utilize digital technology to give experience spending more easily, fast, and cheaply. However, digital transformation also brings challenges and risks, such as security cyber, compliance privacy, and enhancements in complexity technology. Because organizations need to do careful and strategic preparation in carrying out digital transformation, incl develop strategy, building ability technology, and shaping culture-strong innovation.

### **METHOD**

The method used in this research is the comparison study method. The comparison was done between two of the variables studied to see variable tendencies (Cooper and Schlinder, 2010). That overview is then analyzed to can answer the research problem.

# Research variables and operational definitions

a. Transformational leadership type.

Type leadership transformational is the tendency of a leader or superior superiors' ways for influence his subordinates through gift motivation For own exceeded performance expectations. The indicator is: source motivation, resources inspiration, source consideration from an individual, and intellectual stimulus

# b. Type leadership transactional

Type leadership transactional is trend leader or superiors who put forward the transaction process to influence subordinates. The indicators are reward contingent and exception management.

# Population and Sample

Amount of whole office employee subdistrict South Tondano totaled 22 people plus 8 Lurah, a total of 30 people. because amount employees plus

the village chief only 30 people than in the study. This researcher uses whole officials and village heads as sample research. In other words, research is the study population.

# technique data collection

- a. Interview. One technique for this data collection is an interview with parties related to the research.
- **b.** Questionnaire. Obtained data in the study with the method send a questionnaire to sample research. Use a scale of Likert 1 to 5 (1= no never / seldom once, 2 = sometimes, 3 = enough often, 4= often, 5= very often). The questionnaire used is a results adaptation from a questionnaire similar to ever used in research conducted by Kawulur and Wuryaningrat in 2013.

### **Data Analysis Techniques**

For knowing tendency type leadership transformational or transactional Camat South Tondano is used Test the average difference (t-test). Test the average difference of 1 group independent (*one sample t-test*) was used for compares the average Type average value leadership transformational and transactional average values. Test the average difference of 1 sample independent This is used to analyze the significance average difference. Statistical value t or t count counted with use formula or formulas as following (Cooper and Schindler, 2008)

$$: t = \frac{(\bar{X} - \mu)}{s / \sqrt{n}}$$

Description:

 $\overline{X}$ : Average value

**S**: Standard deviation

n: Total sample group

: average difference

To determine its significance used *a level of confidence* of 95%. In other words, if the mark t average is the same with or less than 0.05, then you can say There is a difference. Evaluation other is if t- count value > t- table then you get said there is the difference significant.

### Location and period of Research

The research location conducted at the District Office South Tondano with a period time study is 2 (two) months.

### **RESULTS AND DISCUSSION**

### Validity and Reliability Test Results Instrument

validity is truth and validity instrument research used. If the validity test instrument found an invalid component, then can be said that component the not consistent with other components that support the A concept. To test the validity is the goal to know the level of validity of the instrument questionnaire used in data collection. The method used is *factor analysis* (factor analysis). Every value in each grain question rated with a mark more *factor loading* big The same with 0.4 (Hair et al, 2010). Testing validity This helped with the IBM SPSS 11.5 program. Complete results testing validity can be seen in Table 1.

**Table 1.** Validity Test

| Variable                    | Number of<br>Items | Number of remaining items | Factor Loading |
|-----------------------------|--------------------|---------------------------|----------------|
| Leadership transformational | 20                 | 14                        | 0.614 – 0.891  |
| Leadership Transactional    | 12                 | 7                         | 0.565 - 0.960  |

Source: Results of Processed Primary Data (2015)

From the table above can be concluded variable leadership transformational of the 20 questionnaire items remaining 14 question items questionnaire used in the research. question items removed from data analysis due mark the resulting factor *loading* more small 0.4.

Testing reliability did with using the IBM SPSS program version 11.5, based on the value *Alpha Cronbach*. An instrument can say reliable (*reliable*) if its coefficient reliability Cronbach's Alpha reliability of 0.6 or more.

Test results reliability to all variables showed Table 2.

**Table 2.** Reliability Test Results Study

| Variable                 | Cronbach's Alpha | Information |
|--------------------------|------------------|-------------|
| Leadership               | 0.879            | Reliable    |
| transformational         |                  |             |
| Leadership Transactional | 0.777            | Reliable    |

Source: Results of Processed Primary Data (2015)

Based on Table 2 is visible all items have Cronbach's Alpha value above 0.6 where 0.6 is the mark critical for reliability test research. So got said whole variable construct is reliable so that can be accepted and used For analysis statistics more continue.

e-ISSN: 2809-8463

# Results of Data Analysis

because study This is a comparative test, then for know tendency Type leadership Camat subdistrict What is Tondano Selatan? tend to Type leadership transformational or type leadership transactional so different test is used with One sample or *one sample t-test*. As for the results of data analysis with SPSS 11.5, help found results can be seen in table 3.

**Table 3.** Difference Test Results

|                  | The average value of the | Standard  |            |
|------------------|--------------------------|-----------|------------|
| Variable         | answer's questionnaire   | Deviation | t value    |
| Leadership       |                          |           |            |
| transformational | 4, 1567                  | 0.47156   | 48, 280 ** |
| Leadership       |                          |           |            |
| Transactional    | 3, 2767                  | 0.55813   | 32, 156    |

<sup>\*\*</sup> significant at alpha 0.5

Source: Data processed in 2015

From the results in table 3, got seen that the average value of the answers questionnaire from respondent research is 4.1567 for type leadership transformational and 3.2767 for type leadership transactional. In other words, employees in the District and Lurah are in the district area Tondano Selatan assessed that type the leadership of the Camat Tondano Selatan is more tend to Type Leadership transformational compared to the type leadership transactional (4.1567 > 3.2767).

The difference results from these average values strengthened with results of significant difference between second type average value leadership. it can be seen in the t value of 48.280 which is significant at an alpha value of 0.5.

From the test results of the data so Can said that Camat South Tondano tends own type of leadership transformational than type leadership transactional. The results can indicate that Camat South Tondano with leadership transformational more inclined to approach characteristic employees to build bond emotions or kinship than an approach that leads to only just approach transactional. The research conducted previously by Kawulur and Wuryaningrat (2013) mentioned that leadership transformational beneficial for building rope kinship between superiors and subordinates. Senduk (2012) in his dissertation also concludes that in Eris Minahasa Village built-in pattern leadership transformational to use realize proximity kinship between inhabitant Village.

Research results this show that effective leadership is a factor key in speed up digital transformation at the level of organization anything, including at the level of the district. Research also shows that the types of effective leadership in leading digital transformation are leadership transformational and leadership participatory. Leadership transformational emphasizes innovation, change, and development of employees, meanwhile leadership participatory emphasizes participation and collaboration between leaders and employees. Besides that, research shows that a leader who has competent technology and a strong understanding of digital technology is also more effective in leading digital transformation. because that is, training and development competence technology for leaders can help increase the ability they lead digital transformation at the level of the district.

In a context district, where is the source power possible limited and the level participation staff Possible different, effective leadership strategies must customize with context-specific. this shows the necessity flexible and adaptive approach in leading digital transformation on the level of the district.

### **CONCLUSION**

This study concludes that effective leadership is a factor key in speed up digital transformation at the level of organization, including at the level of the district. Leadership transformational and participatory proven effective in leading digital transformation, because they emphasize innovation, change, and participation active from an employee. Study This show that Camat South Tondano tends to own a type of leadership transformational than type leadership transactional. The results This Can indicate that Camat South Tondano with leadership transformational more inclined to approach characteristic employees to build bond emotions or kinship than an approach that leads to only just approach transactional. Besides that, a leader who has an understanding of strong technology is also more effective in leading digital transformation. because that is, training and development competence technology for a leader is very important for the increasing ability they lead digital transformation. However, effective leadership strategy must be customized with context level specific district, which is possible own source of limited power and levels of participation of different employees. because therefore, a flexible and adaptive approach is essential in leading digital transformation on the level of the district. Study these implications for the importance of effective leadership in speeding up digital transformation on the level district, with a focus on leadership transformational and participatory as well as development competence technology for a leader. In context district, leadership strategy must be customized with condition-specific and characteristic flexible and adaptive.

### REFERENCES

- Aral, S., & Weill, P. (2018). IT governance in the age of digital transformation. MIS Quarterly Executive, 17(1), 1-17.
- Batmetan, J. R., Mamonto, J., Muyu, R., & Poluakan, C. (2022). Evaluation of Incident Management in University using IT Infrastructure Library Framework. International Journal of Information Technology and Education, 1(2), 103–108.
- Batmetan, J. R., Mintjelungan, M. M., Manggopa, H. K., Kilis, B. M. H., & Kembuan, D. R. E. (2019). Usability evaluation of adaptive features in e-learning. 5th UPI International Conference on Technical and Vocational Education and Training (ICTVET 2018), 127–129.
- Batmetan, J. R., Nur, M., Turang, O. S. M., Sumampouw, M. M., & Lahengking, G. M. (2022). IT Infrastructure Library Framework Approach to the Measurement of e-Government Maturity. International Journal of Information Technology and Education, 1(2), 119–128.
- Cao, J., & Mokhtarian, P. L. (2017). The Intended and Unintended Consequences of Leadership in a Digital Age. Journal of Leadership Studies, 11(3), 87-91.
- Cooper, D.R., and P.S. Schindler. (2010). Business Research Methods (10th Edition). Singapore: McGraw-Hill.

- Demhi, D., Liando, O. E. S., & Batmetan, J. R. (2022). Cross-site Scripting Reflected as A Risk High-Level Attack on University Website. International Journal of Information Technology and Education, 1(3), 103–111.
- Garbuio, M., & Singh, H. (2019). The culture factor in digital transformation. McKinsey Quarterly, 1-9.
- Herold, D. M., & Fedor, D. B. (2018). Leadership agility in the digital age. Journal of Leadership Studies, 12(4), 54-64.
- Järvinen, J., & Karjaluoto, H. (2015). The use of digital marketing channels in SMEs: An exploratory study. Journal of Small Business and Enterprise Development, 22(4), 633-651.
- Kääriäinen, J., Käpylä, J., & Korhonen, J. J. (2019). Leadership practices for managing digitalization in industrial networks. Industrial Marketing Management, 81, 135-147.
- Kawulur, A.F., dan Wuryaningrat, N.F. (2013). Gaya Kepemimpinan dan Berbagi Pengetahuan. Jurnal Bisnis dan Manajemen. Vol. 12 No. 1.
- Kembuan, D. R. E., & Batmetan, J. R. (2022). Design e-Office Application for Population based on Cloud Computing. International Journal of Information Technology and Education, 1(2), 91–98.
- Kembuan, E. D. R. E., Batmetan, J. R., Daud, M., & Tarandung, I. R. P. (2022). CCTV Architectural Design for Theft Detection using Intruder Detection System. International Journal of Information Technology and Education, 1(2), 72–78.
- Lee, Y., & Lee, H. (2019). Exploring the role of leadership in digital transformation: A case study of a South Korean company. Information & Management, 56(1), 1-12.
- Manggopa, H. K., Komansilan, T., Kumajas, S., & Batmetan, J. R. (2022). Augmented Reality for Geospatial in E-Tourism: Current Status, Research Trends, and Future Directions. International Journal of Information Technology and Education, 1(3), 38–55.
- Palilingan, V. R., & Batmetan, J. R. (2018). Competitive Intelligence framework for Increasing Competitiveness Vocational High School Management.
- Quido Conferti Kainde, J. R. B. (2019). Digital Business Model for Digital Startup in Industrial Era 4.0. International Journal of Advanced Trends in Computer Science and Engineering, 8(1.5), 177–181.
- Senduk, V.A., (2011). Gaya Kepemimpinan Kepala Desa dalam membangun Masyarakat Lokal: Studi tentang kepemimpinan Kepala Desa Eris Kabupaten Minahasa. Disertasi. Universitas Merdeka Malang.
- Sikki, N., & Batmetan, J. R. (2022). Analysis of Digital Transformation Strategy Opportunities and Threats of Food Stalls Small Medium Enterprises in the Industry 4.0. International Journal of Information Technology and Education, 1(3), 98–102.
- Simsek, Z., Heavey, C., Veiga, J. F., & Souder, D. (2015). A typology for aligning and integrating change models in institutional settings: An empirical examination. Journal of Management, 41(5), 1273-1303.
- Westerman, G., Bonnet, D., & McAfee, A. (2014). Leading digital: Turning technology into business transformation. Harvard Business Press.
- Yukl, G. (2006). Leadership in Organization (edisi terjemahan), edisi 7.