

***AUTHENTIC LEADERSHIP AND KNOWLEDGE SHARING IN INDONESIA'S
DATA SCIENCE COMMUNITIES: THE MEDIATING ROLE OF
ORGANIZATIONAL COMMITMENT***

**KEPEMIMPINAN OTENTIK DAN BERBAGI PENGETAHUAN DALAM
KOMUNITAS ILMU DATA DI INDONESIA PERAN MEDIASI KOMITMEN
ORGANISASI**

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ABSTRACT

The purpose of this research is to examine the connections among information sharing behavior, organizational commitment, trust, and authentic leadership in the setting of the workplace. Information was gathered from Indonesian data science community members who were actively engaged in community-based data science development. An study of multiple linear regression was performed to examine the associations among these factors. The findings demonstrate a strong positive correlation between organizational commitment and both explicit and tacit information sharing behavior and authentic leadership. The association between information sharing behavior and authentic leadership is also mediated by organizational commitment. Nevertheless, the association between organizational commitment and knowledge-sharing behavior is not strengthened by trust. Managerial implications include the importance of developing authentic leadership and fostering organizational cultures that support employee commitment. Academic implications include supporting theories of authentic leadership and enriching understanding of the mechanisms of mediation in the relationships among variables. This study provides a significant contribution to understanding the dynamics of workplace relationships and highlights the importance of psychological factors in the development of sustainable organizations.

Keywords: Authentic Leadership, Organizational Commitment, Knowledge Sharing Behavior.

ABSTRAK

Tujuan dari penelitian ini adalah untuk menguji hubungan antara perilaku berbagi informasi, komitmen organisasi, kepercayaan, dan kepemimpinan otentik dalam lingkungan tempat kerja. Informasi dikumpulkan dari anggota komunitas data science Indonesia yang secara aktif terlibat dalam pengembangan data science berbasis komunitas. Sebuah studi regresi linier berganda dilakukan untuk menguji hubungan di antara faktor-faktor ini. Temuan menunjukkan korelasi positif yang kuat antara komitmen organisasi dan perilaku berbagi informasi secara eksplisit dan tacit serta kepemimpinan otentik. Hubungan antara perilaku berbagi informasi dan kepemimpinan otentik juga dimediasi oleh komitmen organisasi. Namun demikian, hubungan antara komitmen organisasi dan perilaku berbagi pengetahuan tidak diperkuat oleh kepercayaan. Implikasi manajerial meliputi pentingnya mengembangkan kepemimpinan otentik dan menumbuhkan budaya organisasi yang mendukung komitmen karyawan. Implikasi akademis termasuk mendukung teori kepemimpinan otentik dan memperkaya pemahaman tentang mekanisme mediasi dalam hubungan antar variabel. Penelitian ini memberikan kontribusi yang signifikan dalam memahami dinamika hubungan di tempat kerja dan menyoroti pentingnya faktor psikologis dalam pengembangan organisasi yang berkelanjutan.

Kata Kunci: Kepemimpinan Otentik, Komitmen Organisasi, Perilaku Berbagi Pengetahuan.

INTRODUCTION

World developments regarding various scientific fields are always driven by the influence of world globalization (Ahmad, Kharisma, &

Fahrurrozi, 2021). Globalization not only has an impact on urbanization but more than that it also has an impact on the development of science and technology. Information technology is

developing so rapidly that it is considered one of the global challenges in various scientific fields so it is closely related to data science (Listyaningrum, 2023). The role of the data science community is as a scientific field that has the authority to provide care and direction to special groups and society (Fhadli, Usman, & Khairan, 2022). Effectiveness and efficiency of the guidance process for the data science community as a special group in order to follow technological developments. This is important for the data science community to pay attention to as a group that provides a forum for aspirations and developments in the world of academic science and technology.

The process of the data science community is to remain able to become a special group forum that can accommodate the various needs of members in the world of academics and technology. Managerial data science community organizations are expected to make it easier for organizational goals and commitment to be achieved through a leadership model and knowledge sharing process through trust given or implemented (Margiadi & Wibowo, 2020).

In the Indonesian context, awareness of the potential as mentioned above is still not fully optimized and is only eventual, so certain approaches are needed that can be initiated by agents of change, in this case the role can be carried out by leaders of data science organizations in Indonesia (Anwar, Kolopaking, Kinseng, & Hubeis, 2014). Therefore, the idea for this research comes from two things, namely from the phenomenon and from the research gap. In terms of phenomena in the field, data science organizations in Indonesia face a number of challenges that are relevant to the variables used in this research. First, there are obstacles in knowledge sharing

between members of the organization and with the wider community. Even though organizational members have adequate knowledge in the field of science, the expected knowledge exchange is still not optimal due to the lack of formal mechanisms that encourage collaboration and sharing of information (Listyaningrum, 2023).

In Indonesia, the involvement of organizational members in developing projects related to science, academics and technology is still quite low (Ahmad, Kharisma, & Fahrurrozi, 2021). This cannot be separated from the lack of leaders who are able to inspire, motivate and guide organizational members so that high organizational commitment can be created which leads to the development of a work culture that supports knowledge sharing (Alilyyani, Wong, & Cummings, 2018).

This research also moves from the research gap, where there is still very little research that attempts to examine the influence of authentic leadership styles on knowledge sharing (Braun & Peus, 2018) especially when linked to the context of data science organizations and the sustainable development of the world of academic science and technology (Fhadli, Usman, & Khairan, 2022).

The gap identified from the points above is very important to answer because it underlines the importance of understanding how authentic leadership can influence knowledge sharing practices in the context of the sustainable development of academic science and technology in Indonesia. The presence of this gap shows that although there is awareness of the potential of Indonesia's sustainable academic and technological world, the implementation of knowledge sharing practices is still not optimal (Margiadi & Wibowo, 2020).

This is based on leadership theory which defines the dissemination of knowledge as something related to authentic leadership in a practical context (Braun & Peus, 2018). In an organizational context, authentic leadership can create an environment where team members feel comfortable sharing ideas and experiences. Authentic leadership prioritizes honesty, transparency, and involvement, all of which are important factors in building trust among team members (Margiadi & Wibowo, 2020).

With authentic leadership, team members are also more likely to have strong ties to their work, especially those related to organizational commitment, work significance and performance, and enthusiasm (Ahmad, Kharisma, & Fahrurrozi, 2021). Through high organizational commitment, it encourages active involvement in the knowledge sharing process and strengthens collaboration and innovation among team members (Listyaningrum, 2023). Apart from that, commitment-trust theory also supports this view by revealing that both trust and organizational commitment have an influence on knowledge sharing (Anwar, Kolopaking, Kinseng, & Hubeis, 2014)

The problem formulation in this research is as follows:

1. Does authentic leadership have a significant positive effect on commitment?
2. Does trust have a significant positive effect on commitment?
3. Does trust have a significant positive effect on explicit knowledge sharing behavior?
4. Does trust have a significant positive effect on tacit knowledge sharing behavior?
5. Does commitment have a significant positive effect on explicit knowledge sharing behavior?

6. Does commitment have a significant positive effect on tacit knowledge sharing behavior?

RESEARCH METHODS

This research is operational research with the aim of developing a model related to the entire research in order to obtain the information needed to answer the problem formulation. This study is research that provides an explanatory explanation by explaining study. This study is said to be causal research (Sugiyono, 2019).

This method research is quantitative. The data collection method is a questionnaire, using the agree-disagree scale technique, while the analysis technique uses SEM (structural equation model) with stages of questionnaire editing, coding, assessing the weight of each question, and tabulating the data obtained (Ghozali, 2019).

RESULTS AND DISCUSSIONS

Outer Model

The following is an illustration of the SEM diagram used in this research:

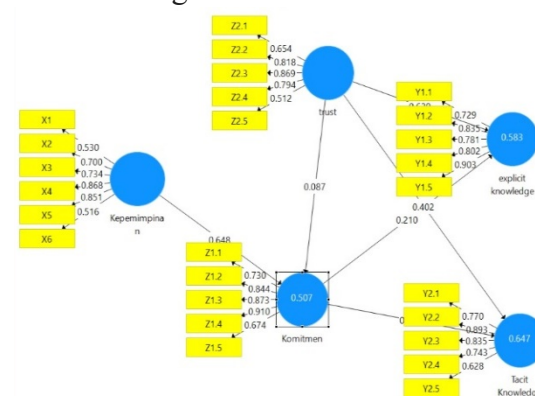


Figure 1. Loading Factor

The results of convergent validity testing show that all variables have indicators with loading factor values of more than 0.7 or 0.5, meaning that all indicators have met the convergent validity criteria.

Table 1. Results of Loading Factor

Variabel	Item	Loading Factor	Info
<i>Authentic Leadership</i>	X1	0,530	Valid
	X2	0,700	Valid
	X3	0,734	Valid
	X4	0,868	Valid
	X5	0,851	Valid
	X6	0,516	Valid
<i>Commitment</i>	Z1.1	0,730	Valid
	Z1.2	0,844	Valid
	Z1.3	0,873	Valid
	Z1.4	0,910	Valid
	Z1.5	0,674	Valid
<i>Trust</i>	Z2.1	0,654	Valid
	Z2.2	0,818	Valid
	Z2.3	0,869	Valid
	Z2.4	0,794	Valid
	Z2.5	0,512	Valid
<i>Explicit Knowledge</i>	Y1.1	0,729	Valid
	Y1.2	0,835	Valid
	Y1.3	0,781	Valid
	Y1.4	0,802	Valid
	Y1.5	0,903	Valid
<i>Tacit knowledge</i>	Y2.1	0,770	Valid
	Y2.2	0,893	Valid
	Y2.3	0,835	Valid
	Y2.4	0,743	Valid
	Y2.5	0,628	Valid

Data Source: Processed by Researchers, 2024

Next, the AVE Method is used to assess the convergent validity of each construct and latent variable. The minimum value that is considered to be met is at least 0.5. The average variance extracted by AVE based on these SEM results is as follows:

Table 2. Average Variance Extracted (AVE)

Variabel	AVE	Info
<i>Authentic Leadership</i>	0,509	Valid
<i>Commitment</i>	0,658	Valid
<i>Trust</i>	0,549	Valid
<i>Explicit Knowledge</i>	0,659	Valid
<i>Tacit knowledge</i>	0,607	Valid

Data Source: Processed by Researchers, 2024

In the table above, the AVE value for the latent variable *Authentic Leadership* (0.509), *Commitment* (0.658), *Trust* (0.549), *Explicit Knowledge* (0.659). Thus, it can be said

that the measurement model is valid and meets the validity test requirements.

The cross loading values based on the results in this SEM are as follows:

Table 3. Discriminant Validity

	<i>Authentic Leadership</i>	<i>Commitment</i>	<i>Tacit knowledge</i>	<i>Explicit Knowledge</i>	<i>Trust</i>
<i>Authentic Leadership</i>	0,713				
<i>Commitment</i>	0,709	0,811			
<i>Tacit knowledge</i>	0,686	0,730	0,779		
<i>Explicit Knowledge</i>	0,616	0,552	0,754	0,812	
<i>Trust</i>	0,704	0,544	0,680	0,643	0,741

Data Source: Processed by Researchers, 2024

In the cross loading table it can be explained that it is a latent variable with a value that is greater than the value of other latent variables. .

Then this reliability test also looks at the composite reliability value as an indicator of reliability where both values must be more than 0.70. The Cronbach alpha value and composite reliability value based on the results in this SEM are as follows:

Table 4. Construct Reliability

	<i>Cronbach's alpha</i>	<i>Composite reliability</i>
<i>Authentic Leadership</i>	0,799	0,857
<i>Commitment</i>	0,867	0,905
<i>Tacit knowledge</i>	0,836	0,884
<i>Explicit Knowledge</i>	0,870	0,906
<i>Trust</i>	0,793	0,855

Data Source: Processed by Researchers, 2024

Based on the table above, the results of the reliability test analysis show that the composite reliability score is greater than 0.7, which means that all variables are reliable and have passed the test requirements.

Inner Model

The feasibility of this model is assessed using the R-square value, which ranges from 0 to 1. A value of 0.75 is deemed excellent, 0.50 is considered

moderate, and 0.25 is viewed as poor. The R-square values derived from the SEM results are presented in the following table:

Table 5. R-Square

Variabel	R-Square	Info
<i>Commitment</i>	0,507	<i>Moderate</i>
<i>Tacit knowledge</i>	0,647	<i>Moderate</i>
<i>Explicit Knowledge</i>	0,583	<i>Moderate</i>

Data Source: Processed by Researchers, 2024

From the table above, the suitability of the model can be seen from the results of r-square Commitment, Tacit knowledge and Explicit Knowledge with values of 0.507 (50.7%), 0.647 (64.7%) and 0.583 (58.3%) meaning r-square Commitment, Tacit knowledge and Explicit Knowledge are in the moderate category.

Table 6. Goodness of Fit

	Saturated Model	Estimated Model
SRMR	0,145	0,150
d ULS	7,414	7,926
d G	10,608	10,828
Chi-Square	834.175	842.728
NFI	0,333	0,327

Data Source: Processed by Researchers, 2024

Values below 0.08 are considered acceptable, while values close to 0 indicate excellent fit. If no cutoff value is set in this field, see other suitability indices in the table figure for a more comprehensive evaluation (Nardi, 2018).

Chi-square is sensitive to sample size, meaning it tends to be significant for larger samples even if the model fit is acceptable. Therefore, it is recommended to use chi-square in conjunction with other goodness-of-fit indices such as SRMR (Nardi, 2018).

To find out whether a relationship is significant or not, look at the p-value

compared to the 5% error rate following research hypothesis testing:

Table 7. Path Coefficient SEM-PLS

	Original sample (O)	T statistics ((O/STDEV))	P values
<i>Authentic leadership -> commitment</i>	0.648	3.446	0.002
<i>Trust -> commitment</i>	0.087	0.437	0.665
<i>Trust -> explicit knowledge sharing behavior</i>	0.629	3.939	0.000
<i>trust -> tacit knowledge sharing behavior</i>	0.402	2.484	0.018
<i>commitment -> tacit knowledge</i>	0.512	3.033	0.005
<i>commitment -> explicit knowledge sharing behavior</i>	0.210	1.507	0.142
<i>commitment -> tacit knowledge sharing behavior</i>	0.512	3.033	0.005

Data Source: Processed by Researchers, 2024

Based on the table above, the results of the hypothesis test show the following results and conclusions:

1. Authentic leadership has a positive effect of 0.648 on commitment with a t-statistic value of 3.446 and a p-value of $0.002 < 0.05$. So it can be concluded that the hypothesis "authentic leadership has a positive and significant effect on commitment", H1 is accepted.
2. Trust has no a positive effect of 0.087 on commitment with a t-statistic value of 0.437 and a p-value of $0.665 > 0.05$. So it can be concluded that the hypothesis "Trust has no a positive and insignificant influence on commitment ", H2 is not accepted.
3. Trust has a positive effect of 0.629 on explicit knowledge sharing behavior with a t-statistic value of 3.939 and a p-value of $0.000 < 0.05$. So it can be concluded that the hypothesis "trust has a positive and significant effect on explicit knowledge sharing behavior ", H3 is accepted.
4. Trust has a positive effect of 0.402 on tacit knowledge sharing behavior with a t-statistic value of 2.484 and a p-value of $0.018 < 0.05$. So it can be concluded that the hypothesis "trust has a positive and

significant effect on tacit knowledge sharing behavior", H4 is accepted.

5. Commitment has no a positive effect of 0.210 on explicit knowledge sharing behavior with a t-statistic value of 1.507 and a p-value of $0.142 > 0.05$. So it can be concluded that the hypothesis "Commitment has no a positive and insignificant influence on explicit knowledge sharing behavior", H5 is not accepted.
6. Commitment has a positive effect of 0.512 on tacit knowledge sharing behavior with a t-statistic value of 3.033 and a p-value of $0.005 < 0.05$. So it can be concluded that the hypothesis "commitment has a positive and significant effect on tacit knowledge sharing behavior", H5 is accepted.

Authentic Leadership Has A Positive Effect On Commitment

Authentic leadership is associated with higher levels of employee commitment to the organization. Leaders who demonstrate authenticity and consistency in their behavior tend to form strong bonds between employees and the organizations they work for.

Trust Has No A Positive Effect On Commitment

Employees who feel attached to the organization tend to be more willing to share their explicit knowledge with coworkers. Commitment to the organization provides additional motivation for employees to contribute to the success of the organization through sharing information.

Trust Has A Positive Effect On Explicit Knowledge Sharing Behavior

Although trust has a significant impact on knowledge sharing, the analysis shows that trust does not strengthen the relationship between organizational commitment and explicit

knowledge sharing. This suggests that other factors may be more dominant in influencing explicit knowledge sharing behavior.

Trust Has A Positive Effect On Tacit Knowledge Sharing Behavior

The findings suggest that trust also does not strengthen the relationship between organizational commitment and tacit knowledge sharing. While trust plays a crucial role in fostering a knowledge-sharing environment, its influence on the correlation between organizational commitment and tacit knowledge sharing behavior is not substantial.

Commitment Has No A Positive Effect On Explicit Knowledge Sharing Behavior

Findings suggest that organizational commitment partially mediates the relationship between authentic leadership and explicit knowledge sharing behavior. This confirms that authentic leadership can form organizational commitment which in turn encourages explicit knowledge sharing behavior.

Commitment Has A Positive Effect Tacit Knowledge Sharing Behavior

The analysis shows that organizational commitment also mediates the relationship between authentic leadership and tacit knowledge sharing behavior. Employees who feel connected to the organization tend to be more open to sharing their experiences and understanding.

CONCLUSION AND SUGGESTION

Based on this analysis and the discussion presented by the researcher, the following conclusions can be drawn:

1. Authentic leadership has a significant positive effect on commitment.

2. Trust has no a positive effect and insignificant on commitment.
3. Trust has a positive effect and significant on explicit knowledge sharing behavior.
4. Trust has a positive effect and significant on tacit knowledge sharing behavior.
5. Commitment has no a positive effect and insignificant on explicit knowledge sharing behavior.
6. Commitment Trust has a positive effect and significant on tacit knowledge sharing behavior.

This research has suggestions that can influence the research results. The suggestions of this research are:

1. Conduct longitudinal studies to confirm cause-and-effect relationships between the variables studied.
2. Involve a more diverse sample from different types of organizations to broaden the generalizability of results.

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