

Competence and Knowledge Sharing Behavior as Determinants of Innovative Work Behavior: A Study on Employees of The Semarang City Education Office

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Abstract:

Human resources are the main driving force in organizations, including in the government sector. In this context, employee performance is the key to achieving organizational goals. This study aims to analyze the influence of competence and knowledge sharing behavior on innovative work behavior, including factors that affect the performance of employees of the Semarang City Education Office. This study uses a quantitative approach with an explanatory survey design. Data was collected through a questionnaire distributed to employees of the Semarang City Education Office with a total of 125 respondents. The data analysis technique used was multiple regression analysis to test the direct influence of independent variables on dependent variables. The results of the analysis showed that employee competence had a significant effect on innovative behavior ($\beta = 0.648$; $p < 0.01$) and knowledge sharing behavior ($\beta = 0.830$; $p < 0.01$). Knowledge sharing behavior also had a positive effect on innovative behavior ($\beta = 0.255$; $p < 0.05$). This model explains 70.2% of the variance of innovative work behaviors. These findings underscore the importance of improving competence and a culture of knowledge sharing in encouraging innovation in the work environment.

Keywords: Competence, Knowledge Sharing Behavior, Innovative Work

Introduction:

Employee performance has an important role in achieving educational goals, especially in improving the quality of services that have an impact on student learning and achievement (Iwu et al., 2018). As revealed by Parveen et al., (2024), employee performance is a key element in achieving organizational goals. According to Kakingo & Lekule, (2021), factors such as competence, motivation, role clarity, work environment, and leadership affect employee success at work. Good competence allows employees to work more efficiently, innovatively,

and creatively in finding solutions to various problems. This shows the importance of expertise that is relevant to the tasks carried out in driving efficiency and achieving organizational goals (Turyadi et al., 2023).

Human resources (HR) are the main asset that determines the success of an organization, both in the public and private sectors (Valmohammadi & Shahrashoob, 2022). Effective HR management through Human Resource Management (HRM) is a key factor in optimizing the potential of individuals and teams to achieve organizational goals. MSDM, according to Adatsi et al., (2020), is a series of

strategic efforts that focus on the sustainable planning, management, and development of human talents. In the context of government organizations, especially the Semarang City Education Office, the challenges in human resource management are increasingly complex because they involve public services that must meet people's expectations. Employee performance, as one of the indicators of the success of MSDM, is very important to pay attention to. Knies et al., (2024) define employee performance as work behavior that directly contributes to the achievement of organizational goals. At the Semarang City Education Office, improving employee performance is the main concern because it directly impacts the quality of public services. However, a report from the Semarang City Public Service Supervisory Agency shows an increase in public complaints about the performance of Education Office employees from 376 cases in 2022 to 442 cases in 2023. This data shows that there is a gap between public expectations and the actual performance given.

Some of the factors that affect employee performance at the Semarang City Education Office are the high workload, limited number of employees, and incompatibility of competencies with job demands. High workloads often result in decreased productivity and quality of service. In addition, the lack of relevant training and the mismatch between the qualifications of employees and the positions they hold add to the complexity of the problem. This reflects the importance of competency-based human resource management to create high-performing human resources. On the other hand, work motivation and organizational culture are also important aspects that affect employee performance. Low work motivation can cause a decrease in employee morale in providing excellent service. An organizational culture that does not support innovation and collaboration can also hinder performance improvement. Therefore, an MSDM strategy oriented towards increasing motivation and strengthening organizational culture needs to be implemented to overcome this obstacle.

Knowledge sharing behavior is one of the important factors in improving employee performance (Javadi et al., 2012). According to Nezafati et al., (2023), knowledge sharing behavior involves the transfer of individual intellectual capital to support collaboration in teams. By sharing information, employees can work more synergistically, increase efficiency, and create a positive organizational culture. In addition, sharing knowledge also increases motivation and job satisfaction, as employees feel their contributions are appreciated. In a dynamic environment, these behaviors help organizations be more adaptive to change and support better decision-making (Sonmez Cakir & Adiguzel, 2020). Innovative work behaviors include activities that generate new ideas to improve the efficiency and effectiveness of the organization (Anggreni et al., 2022). Innovative employees are able to create creative solutions to complex problems, improve service quality, and reduce operational costs. Prieto & Pérez-Santana, (2014) emphasized that innovative behavior also involves the development of new technologies and the improvement of work procedures. This not only helps organizations achieve strategic goals, but also creates a more adaptive and progressive work environment (AlEsa & Durugbo, 2022).

Innovation in human resource management is one of the solutions that can be implemented to overcome these problems (Stone et al., 2015). Technology-based approaches, such as personnel information systems and online training programs, can help improve the efficiency and effectiveness of employee work (Suwaji et al., 2024). In addition, the implementation of policies that support the development of employee competencies, such as training and certification programs, is also important to improve the professionalism and expertise of employees (Gani et al., 2024). This study aims to analyze the influence of competence and knowledge sharing behavior on innovative work behavior, including factors that affect the performance of employees of the Semarang City Education Office. Thus, it is hoped that the results of this research can be an important contribution to the development of MSDM policies in the

government sector, especially in improving the quality of public services at the Semarang City Education Office.

Method:

This study uses a quantitative approach with a survey method. Data was collected through the distribution of structured questionnaires to employees of the Semarang City Education Office. The questionnaire is designed to measure competency variables, knowledge sharing behavior, innovative work behavior, and employee performance. This research was carried out in several stages, namely planning, data collection, data analysis, and interpretation of results.

Population and Sample:

The research population is all employees of the Semarang City Education Office. The research sample was determined by the purposive sampling technique, which is to select respondents who have relevance to the research objectives, such as employees who are directly involved in public service or have at least two years of work experience. The sample used amounted to 125 respondents to ensure adequate representation.

Data Analysis Procedures and Techniques:

Data analysis in this study was carried out using SmartPLS statistical software with several analysis techniques, namely validity and reliability tests to ensure that the research instruments used are valid and reliable, descriptive analysis to provide an overview of respondent characteristics and data

distribution, multiple linear regression analysis to test the influence of competence and knowledge sharing behavior on innovative work behavior. The research procedure consists of five main stages, namely the formulation of research problems and objectives, the preparation of instruments and initial trials to ensure validity and reliability, the collection of data from respondents, the analysis of data using predetermined statistical techniques, and the preparation of a report on the research results along with policy recommendations. The results of this study are expected to provide an empirical overview of the influence of competence and knowledge sharing behavior on innovative work behavior and contribute to the formulation of strategies to improve employee performance at the Semarang City Education Office.

Result:

In the context of competency and knowledge sharing behavior, the analysis shows that the two interact significantly in influencing innovative work behavior in the Semarang City Education Office. This result emphasizes the importance of considering these two factors simultaneously in designing a human resource development strategy at the Semarang City Education Office. Improving employee competencies supported by cultivating knowledge-sharing behavior can create a more collaborative and innovative work environment. Based on the results of the questionnaire, as many as 125 respondents participated. The factor loading value is said to be valid if it is more than 0.7 (>0.7) (Hair et al., 2019). The test results are as follows:

Table 1. Value Loading Factor

Variable	Measurement Indicators	Factor Loading	Validity
Competence	Intellectual Ability	0,832	Valid
	Interpersonal Skills	0,810	
	Adaptability	0,874	
	Results-Oriented Capabilities	0,913	

Knowledge Sharing Behavior	Gathering new information about jobs	0,810
	Gathering new ideas	0,744
	Gathering new knowledge about work from the competencies of others	0,859
	Sharing new knowledge	0,814
	Sharing new information about work	0,808
Innovative Work Behavior	Able to create opportunities or problems	0,847
	Able to develop innovative ideas	0,806
	Able to solve problems and provide solutions	0,839
	Able to motivate other employees	0,821
	Dare to implement new ideas	0,876

Table 1 shows the results of the loading factor analysis for each measurement indicator of the competency variables, knowledge sharing behavior, and innovative work behavior. In general, the loading factor value for each indicator exceeded the threshold value of 0.7, which indicates that all indicators used have excellent convergent validity. For competencies, indicators such as results-oriented ability (0.913) and adaptability (0.874) show the highest loading factor, emphasizing that employee competencies that focus on results and adaptability are very important in supporting their performance. In the variable knowledge sharing behavior, indicators such as sharing new knowledge from the

competence of others (0.859) and sharing new knowledge (0.814) had excellent loading factor values, indicating that sharing information and knowledge in the context of work contributed greatly to knowledge sharing behavior. Meanwhile, in innovative work behavior, indicators of daring to apply new ideas (0.876) and being able to create opportunities or problems (0.847) have a significant loading value, indicating that innovation in work is highly dependent on the ability of employees to come up with new ideas and dare to apply them. Overall, the results of this loading factor analysis support the validity of each indicator used to measure each variable in this study.

Table 2. Construct reliability and validity

	Cronbach's alpha	Rho_A	Composite reliability	Average variance extracted
Competence	0,880	0.898	0,918	0.736
Knowledge Sharing Behavior	0,866	0.888	0.904	0.653
Innovative Work Behavior	0,894	0.924	0.922	0.702

Table 2 shows the results of reliability and validity testing of constructs for three main variables in this study: competence, knowledge sharing behavior, and innovative work behavior. The Cronbach's Alpha value for the three constructs is in a range that is considered very good, which is above 0.7 (competence = 0.880, knowledge sharing behavior = 0.866, and innovative work behavior = 0.894), which shows that the instruments used in this study have high internal consistency. In addition, the Rho_A and Composite Reliability (CR) values for each construct also showed adequate values (competence = 0.898 and 0.918; knowledge sharing behavior = 0.888 and 0.904; innovative work behavior = 0.924 and 0.922), which was greater than the recommended threshold value (0.7), confirming that the constructs had excellent reliability. The Average Variance Extracted (AVE)

for the three constructs also met the set standard, which was more than 0.5 (competence = 0.736; knowledge sharing behavior = 0.653; innovative work behavior = 0.702), which shows that the constructs have good convergence validity. Overall, the results of this reliability and validity test support the feasibility of the constructs used in this study to measure the variables studied.

Since all variables are valid and reliable, to be used in the study must meet further tests. Discriminant validity can be determined by looking at the value of the Fornell-Larcker Criterion. The test results are in Table 3. shows that the correlation of variables with the variables themselves is greater than the correlation of variables with other variables.

Table 3. Fornell-Larcker Criterion

	Competence	Knowledge Sharing Behavior	Innovative Work Behavior
Competence	0.825		
Knowledge Sharing Behavior	0.657	0.838	
Innovative Work Behavior	0.537	0.707	0.858

Table 3 shows the results of the Fornell-Larcker Criterion used to test the convergent validity and validity discrimination between constructs in this study. Based on this criterion, the diagonal values representing the roots of the Average Variance Extracted (AVE) for each construct, namely competence (0.825), knowledge sharing behavior (0.838), and innovative work behavior (0.858), are all higher than the correlation values between other constructs, which indicates that each construct has a good validity discrimination. The correlation between competence and knowledge sharing behavior (0.657), as well as between competence and innovative work behavior (0.537) shows a significant relationship, but does not exceed the root value of AVE, which confirms that each of

these constructs is a different concept and has good discriminatory validity. The correlation between knowledge sharing behavior and innovative work behavior (0.707) also shows a strong relationship, but still does not exceed the root of AVE, indicating that these three constructs are interrelated but remain conceptually separate. Overall, these results support the validity of the discrimination and convergence of the constructs tested in this study.

After all question items are declared valid and reliable, structural model measurements are carried out using the R2 Test to see the ability of a model to explain dependent variables. The R2 value must exceed 0.50 to see the sufficient contribution by a model in explaining dependent variables.

Table 4. R-square

	R-square
Innovative Work Behavior	0.702

Source: SmartPLS.30 output

Table 4 shows an R-square value of 0.702 for the dependent variable Innovative Work Behavior, which indicates that this research model is able to explain 70.2% of the variance in innovative work behavior. The R-square value of more than 0.50 shows that the structural model used in this study has a significant contribution in explaining the dependent variables. Thus, this model can be considered quite good in describing the factors that affect innovative work behavior, and these results strengthen the validity of the model built in this study to examine the relationship between

competence, knowledge sharing behavior, and innovative work behavior (Menon, 2014; Muslichah & Asrori, 2018; Gitoho et al., 2016). After obtaining sufficient information from the R² analysis, the next step is to conduct a hypothesis test to test the significance of the influence of each independent variable (Competence and Knowledge Sharing Behavior) on the dependent variable (Innovative Work Behavior). This hypothesis test was carried out to determine whether the observed effect was statistically significant or not.

Table 5. Path coefficients/direct effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Competence-> Innovative Work Behavior	0.648	0.662	0.112	6.083	0.000
Competence-> Knowledge Sharing Behavior	0.830	0.851	0.042	22.855	0.000
Knowledge Sharing Behavior -> Innovative Work Behavior	0.255	0.254	0.134	1.878	0.039

Table 5 shows the results of the path coefficients test or direct effects between the variables in the model. Based on the results of the analysis, the relationship between Competence and Innovative Work Behavior has a path coefficient of 0.648, with a t-statistical value of 6.083 and a p-value of 0.000, which shows a very significant influence. This means that competence has a strong impact on innovative work behavior. In addition, the relationship between Competence and Knowledge

Sharing Behavior showed a path coefficient of 0.830 with a t-statistic of 22.855 and a p-value of 0.000, which also showed a significant and positive influence, meaning that competence contributed greatly to the knowledge sharing behavior. Finally, the relationship between Knowledge Sharing Behavior and Innovative Work Behavior showed a path coefficient of 0.255 with a t-statistic of 1.878 and a p-value of 0.039, which was also significant at the level of 5%, although the effect was smaller

than the direct relationship between competence and innovative work behavior. Overall, these results show that competencies play an important role in improving innovative work behaviors, both directly and through knowledge sharing behaviors.

Discussion:

Based on the results of the analysis that has been carried out, several important findings can be discussed further to better understand the impact and interaction between competence, knowledge sharing behavior, and innovative work behavior at the Semarang City Education Office. First, findings that show a significant relationship between competence and innovative work behavior reinforce the importance of employee competency development in encouraging innovation in the workplace. The competencies possessed by employees, both in terms of intellectual, interpersonal, and adaptability, have proven to be a key factor that facilitates the creation of innovative ideas. This is in line with the view that employees who have adequate abilities will be more confident in facing challenges and finding creative solutions to existing problems (Mumford et al., 2002). Improving employee competencies accompanied by relevant training and development can accelerate the achievement of organizational goals, especially in improving the quality of public services (Mumford et al., 2002; Shet et al., 2019).

Second, knowledge sharing behavior acts as a mediator that connects competence with innovative work behavior. Although the direct contribution of knowledge sharing behavior to innovative work behavior is not as large as competence, these findings remain significant and show that knowledge sharing can accelerate the innovation process. Employees who are used to sharing information and knowledge with colleagues tend to have a broader understanding, which ultimately helps them in creating more effective innovative solutions (Muzam, 2023). In the context of the Semarang City Education Office, this indicates the importance of creating a culture of knowledge sharing among employees, especially in solving complex problems related to public services.

Furthermore, the influence of competence on knowledge sharing behavior is significant, showing that employees who have higher competence tend to be more active in sharing knowledge. Employees who have a deep understanding of their work feel more comfortable sharing information and ideas with colleagues, which in turn improves team collaboration (Prieto & Pérez-Santana, 2014). Therefore, policies that support competency development, such as training, certification, or increased access to information resources, can strengthen a culture of knowledge sharing in the work environment. However, although the results of this study show a significant positive relationship between the three variables, there are several things that need to be considered. Other factors such as work motivation and an organizational environment that supports collaboration can also influence knowledge sharing and innovation behavior (Prieto & Pérez-Santana, 2014). Therefore, it is important for management to pay attention to other aspects that can affect the quality of employee work, such as incentive policies, opportunities for career development, and the provision of support from superiors.

Overall, this study provides empirical evidence that competence and knowledge sharing are important factors that can improve innovative work behaviors in the Semarang City Education Office. Therefore, human resource management strategies that focus on developing competencies and a culture of knowledge sharing can be implemented to improve employee performance and the quality of public services. For future research, it is recommended to explore other factors that may play a role in strengthening the relationship between competence, knowledge sharing, and innovation, as well as to test this model in other public sectors to ensure generalization of findings.

Conclusion:

Based on the results of the research that has been conducted, it can be concluded that competence and knowledge sharing behavior have a significant influence on innovative work behavior at the Semarang City Education Office. Employee

competence, both in intellectual, interpersonal, adaptable, and results-oriented aspects, has proven to be the main factor that encourages the creation of innovative ideas. In addition, knowledge sharing behavior acts as a mediator that connects competence with innovative work behaviors, so that sharing knowledge between employees is the key to accelerating the creation of innovation in the workplace. The results of this study show that employees with high competence are more likely to share knowledge, which in turn increases collaboration and innovation in the organization. Therefore, it is important for management to create policies that support competency development and a culture of knowledge sharing to improve the performance and quality of public services. Thus, a human resource management strategy that prioritizes improving competence and sharing knowledge can strengthen innovation and work effectiveness at the Semarang City Education Office.

For further research, it is necessary to consider other factors that may also affect the relationship between the variables studied, such as work motivation, organizational culture, and support from superiors, which can provide further insights in efforts to improve employee performance and the quality of public services.

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