The Influence of Competence, Knowledge Sharing, And Innovation on Organizational Performance with Innovative Work Behavior as A Mediation Variable (Study at Pt Pupuk Iskandar Muda)

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Abstract

This research aims to examine the competence, knowledge sharing, and innovation influence on organizational performance with innovative work behavior as a mediation. It was conducted at PT Pupuk Iskandar Muda, and the population was its employees, totalling 240 people. Sample determination was carried out through the census technique. Data was obtained by distributing online questionnaires. Data were tested using SEM-AMOS. The results prove that directly, competence influences innovative behavior, knowledge sharing significantly influences innovative behavior, innovation significantly influences innovative behavior, competence significantly influences organizational performance, knowledge sharing significantly influences organizational performance, innovation significantly influences organizational performance, and innovative behavior significantly influences organizational performance. Furthermore, the results of indirect hypothesis testing prove that innovative behavior mediates the competence impact on organizational performance, innovative behavior mediates the knowledge sharing impact on organizational performance, and innovative behavior mediates the innovation impact on organizational performance. These findings show that innovative behavior for all mediation models acts as a partial mediator, which can be used as a mediator or not. Thus, modelling for improving organizational performance has been proven to be a function of increasing competence, increasing knowledge sharing, increasing innovation, and strengthening innovative behavior within the organization.

Keywords: Competence, Knowledge Sharing, Innovation, Innovative Work Behavior, Organizational Performance

1. Introduction

PT Pupuk Iskandar Muda is a fertilizer-producing company located in North Aceh which is under the auspices of PT Pupuk Indonesia. Based on the direction of the Ministry of Agriculture, PT Pupuk Indonesia divides domestic fertilizer needs among each of its subsidiaries, including PT Pupuk Iskandar Muda. In carrying out this business process, PT Pupuk Iskandar Muda is required to be able to produce according to or exceed targets and be efficient in managing its resources. Based on performance reports obtained in the last 3 years (2019, 2020, and 2021), it is known that PT Pupuk Iskandar Muda's performance has fluctuating values. This is known from the work achievements of PT Pupuk Iskandar Muda as presented in Table 1 below.
Table 1. PT Pupuk Iskandar Muda's achievements

<table>
<thead>
<tr>
<th>Parameter</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Result</td>
<td>Information</td>
<td>Result</td>
</tr>
<tr>
<td>Comprehensive Profit</td>
<td>321.45 0.000.000</td>
<td></td>
<td>25.120 0.000.000</td>
</tr>
<tr>
<td>Company Soundness Level</td>
<td>76 Healthy</td>
<td>68.5 Healthy</td>
<td>75.5 Healthy</td>
</tr>
<tr>
<td>GCG Assessment Results</td>
<td>84.86 Good</td>
<td>87.54 Very good</td>
<td>87.54 Very good</td>
</tr>
<tr>
<td>KPKU - SOE Assessment Results</td>
<td>532 Good Performance</td>
<td>575,25 Good Performance</td>
<td>599 Emerging Industry Leader</td>
</tr>
<tr>
<td>Customer satisfaction survey</td>
<td>Very satisfied</td>
<td>Very satisfied</td>
<td>Very satisfied</td>
</tr>
<tr>
<td>Employee Satisfaction Survey</td>
<td>Satisfying</td>
<td>Satisfying</td>
<td>Satisfying</td>
</tr>
<tr>
<td>Environmental Satisfaction Survey</td>
<td>Very satisfactory</td>
<td>Very satisfactory</td>
<td>Very satisfactory</td>
</tr>
<tr>
<td>Auditor Opinion</td>
<td>Unqualified Against the Fairness of Financial Statements</td>
<td>Unqualified Regarding financial reports</td>
<td>Unqualified Against Financial Statements</td>
</tr>
<tr>
<td>Key Performance Indicators</td>
<td>93.7 Good</td>
<td>82.48 Good</td>
<td>96.07 Good</td>
</tr>
<tr>
<td>Risk Management Assessment Results</td>
<td>11.3 Medium Risk</td>
<td>2.98 Mature-Defined</td>
<td>11.3 Medium Risk</td>
</tr>
</tbody>
</table>

Source: PT Pupuk Iskandar Muda Annual Report 2019, 2020 & 2021

From the table above it can be seen that there has been a decrease in comprehensive profit from 2019 to 2020. Even though there has been an increase in profits in 2021, this profit is still far from the profit earned in 2019. Overall, the performance of PT Pupuk Iskandar Muda still needs to be improved and developed. This is in line with the concept of continuous improvement which requires companies to adapt due to dynamic market conditions. One way to improve the performance of PT Pupuk Iskandar Muda is by increasing innovative work behavior.

One of the behaviors required of employees to achieve organizational goals is innovative work behavior. Innovative work behavior is a form of behavior that aims to achieve the initiation and introduction of a new idea, process, procedure, or product that is useful for the organization in the context of this research, namely the company (J. P. J. de Jong & Kemp, 2003); (Rosady,
Hafasnuddin, & Halimatussakdiah, 2022). In carrying out their functions in the organization, every employee is required to have and improve innovative work behavior. Good work behavior will encourage the completion of work with better quality so that it significantly influences employee performance. The better the innovative behavior of employees, the better their performance and the performance of the employees where they work (Robbins & Judge, 2017).

Other factors that influence organizational performance are competence, knowledge sharing, and innovation. Some of the benefits of knowledge sharing are making organizations able to survive in a competitive environment, making individuals innovative, and making individuals think more critically and creatively. Based on this description, this article tries to formulate and prove the causality pattern of the variables Competence, innovation knowledge sharing, innovation work behavior, and organizational performance at PT Pupuk Iskandar Muda.

2. Literature

Organizational Performance

According to (Prawirosentono, 2014), Performance is the work result of a person or group in an organization, following their authority and responsibility to achieve organizational goals (Byars & Rue, 2006), defines performance as the level of achievement of results or "the degree of accomplishment". Performance can also be interpreted as the work results that can be achieved by a person or group of people in an organization to achieve legal goals. Understanding performance is the level of task implementation that a person can achieve by using existing abilities and the limits that have been set to achieve organizational goals (Samsudin, 2010). From these various opinions, it concludes that performance essentially has the same meaning. The only difference is in the editorial delivery. Many limitations are given by experts regarding the term performance and all have slightly different views, but in principle, experts state that performance leads to an effort being made to achieve better performance.

Innovative Work Behavior

According to (J. P. J. de Jong & Kemp, 2003), Innovative behavior is a series of work activities that are gradually carried out by workers to develop effective work behavior. According to (Nindyati, 2009), Innovative behavior is behavior to generate, improve, and apply new ideas in a task, workgroup, or organization. Innovative behavior is also defined as an action taken to create new thoughts or ways to be applied in completing work (Gaynor, 2002). (Kleysen & Street, 2001) defines innovative behavior as the totality of individual actions that lead to the generation and introduction of new ideas that benefit the organization. According to (Kheng, Mohamad, Ramayah, & Mosahab, 2010) Innovative work behavior is a context in which individuals can facilitate the achievement of initiation and recognition of ideas about useful new processes, products, or procedures. Process - the process of creating, introducing, and applying new ideas that are indeed carried out in a job, which can be useful for the organization because it generates profits (Janssen, 2000), (Messmann & Mulder, 2012). Through several understandings from these experts, it concludes that innovative work behavior is an individual attitude that can produce new ideas or products. Innovative work behavior is also the basis for an efficient and optimal work system. In this article, innovative work behavior will also often be called "innovative behavior"
Competence

Competence is also defined as an active skill/skill. Competencies are categorized from simple or basic levels to more difficult or complex levels which in turn will relate to the process of preparing materials or learning experiences (Ramayulis, 2013). (Djoyonegoro, 1996) defines competence as a basic character possessed by an individual that is causally related to assessment standards that are referenced in superior performance or a job. Based on several explanations of the definition of competency from experts, we can conclude that competency is a standard of knowledge or ability that an individual has or must have to be able to complete work on time and with the right quality. Competencies can be honed and developed so that they can be adapted to organizational development programs through training and character development programs.

Knowledge Sharing

According to (Vries, Hooff, and Ridder, 2006), Sharing knowledge is a reciprocal process where individuals exchange knowledge (tacit and explicit knowledge) and jointly create new knowledge (solutions). One of the purposes of this definition is to provide knowledge by communicating knowledge to others. According to (Pasaribu & Toruan, 2009), Knowledge sharing can be defined as a culture of social interaction, including the exchange of knowledge among employees, experiences, and skills throughout the entire department or organization. This became the general basis for the need for cooperation. Knowledge sharing is the core and basis of knowledge management. Knowledge sharing is an important process in the progress of today's organizations because it spreads intellectual capital throughout the organization (Nonaka & Takeuchi, 1995). Based on these several definitions, we can conclude that knowledge sharing is an activity of exchanging knowledge to equalize the knowledge and skills of organizational members to increase collective competence.

Innovation

According to (Rogers, 2003), innovation can mean all new things in the form of ideas, ideas, practices, or objects/objects that are consciously accepted for adoption by an agency, group, or individual. Whereas (Ahmed & Shepherd, 2010), Innovation has no limits on something tangible like objects but also includes actions or movements towards changes in people's lives. Whereas (Hurley & Hult, 1998), Innovation can also be interpreted as a mechanism for a company to adapt in a dynamic environment, where companies must be able to issue new innovative ideas which then lead to new, higher quality products to meet customer needs. Temporary (Edquist, Hommen, & McKelvey, 2001), innovations are new creations (in the form of material or intangible) that have significant economic value, which are generally carried out by companies or sometimes by individuals. Based on the opinions of these experts, it can be argued that innovation is a solution when all lines of business and even patterns of life are moving towards efficiency and optimization. So, innovation is anything that can have a positive impact on every party involved without being limited to the form and initial investment.

Research Model and Hypothesis

The author formulates a study framework and hypotheses as follows.
Figure 1. Research Framework

H1: Competence significantly influences innovative work behavior
H2: Knowledge sharing significantly influences innovative work behavior
H3: Innovation significantly influences innovative work behavior
H4: Competence significantly influences the organizational performance of PT Pupuk Iskandar Muda
H5: Knowledge sharing significantly influences the organizational performance of PT Pupuk Iskandar Muda
H6: Innovation significantly influences the organizational performance of PT Pupuk Iskandar Muda
H7: Innovative work behavior significantly influences the organizational performance of PT Pupuk Iskandar Muda
H8: Competence significantly influences the organizational performance of PT Pupuk Iskandar Muda through innovative work behavior
H9: Knowledge sharing significantly influences the organizational performance of PT Pupuk Iskandar Muda through innovative work behavior
H10: Innovation significantly influences the organizational performance of PT Pupuk Iskandar Muda through innovative work behavior

3. Method

This study was conducted at PT Pupuk Iskandar Muda in North Aceh Regency, Indonesia. The object of this research is competence, knowledge sharing, and innovation. The population is PT Pupuk Iskandar Muda employees, totaling 240 people. The sample was determined through a census. Data was collected by questionnaires using the online Google Form application. Data were measured using a Likert scale and tested using the SEM-AMOS and the Sobel test.

In this research, constructs were built for each variable, and the provisions that bind the measurement, namely:

1. To measure organizational performance using indicators as disclosed by (Prawirosentono, 2014) namely (a) productivity, (b) service quality, (c) responsiveness, (d) responsibility, (e) accountability
2. To measure innovative work behavior using indicators as disclosed by (J. de Jong & Hartog, 2010) namely (a) exploration of ideas, (b) development of ideas, (c) collaboration, and (d) implementation of ideas.

3. To measure competency using indicators as stated by (Ruky, 2016) namely (a) personal character, (b) self-concept, (c) knowledge, (d) skills, (e) work motivation

4. To measure knowledge sharing using indicators as stated by (Matzler, Schwarz, Deutinger, & Harms, 2008) namely (a) embedded knowledge, (b) embodied knowledge, (c) encultured knowledge, (d) embedded knowledge, (e) Encoded Knowledge

5. To measure innovation using indicators as stated by (Anggadwita & Dheawanto, 2013) namely (a) leadership, (b) management/organization, (c) risk management, (d) human resource capabilities, (e) Technology

4. Result

Direct Hypothesis

The model tested is figured below.

![Figure 2. Structural Test](image)

To see whether there is an influence on the results above, the results are presented in the following table.

Table 1. Regression

<table>
<thead>
<tr>
<th>Innovative Work Behavior</th>
<th>Competence</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.462</td>
<td>.163</td>
<td>8.972</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1: Competence Impact on Innovative Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>---------------------------------------------</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence for the competence impact on innovative behavior is obtained from a Critical Ratio (CR) value of 8.972 which is above the cut-off value critical ratio table T of 5% of 1.967, which reveals the presence of significant competence influencing innovative behavior. The magnitude is 1.46 or 146% which means that if a 1% increase in competence will increase innovative behavior by 146%. Researchers found that employees who successfully undertake formal advanced studies such as lectures or skills certifications have innovative behaviors. This innovative work attitude will ultimately help employees complete the work given and make it easier for them to get promotions.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>H2: Knowledge Sharing Impact on Innovative Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence for the knowledge sharing impact on innovative behavior is obtained from a Critical Ratio of 2,464 which is above the cut-off value critical ratio table T of 5% of 1.967, which describes that knowledge sharing significantly influences innovative behavior. The magnitude is 0.205 or 20%, which means that if knowledge sharing increases by 1%, innovative behavior will increase by 20%. Researchers found that PT Pupuk Iskandar Muda has a knowledge management program that is carried out every month in each work unit. Each work unit is required to carry out knowledge sharing regularly by exchanging themes and presenters as well as being recorded and reported to the HR department. Apart from that, KPI echelon 3 is also required to carry out coaching under their ranks.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>H3: Innovation Impact on Innovative Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence for the innovation impact on innovative behavior is obtained from a Critical Ratio of 5,819 which is above the cut-off value critical ratio table T of 5% of 1.967, which reveals the existence of significant innovation influencing innovative behavior. The magnitude of the influence of innovation on innovative behavior is 0.86 or 86%, which means that an increase of 1% in innovation will increase innovative behavior by 86%. Researchers found that innovation is a priority as evidenced by the existence of an annual program, namely the Quality Control Group (GKM) convention and the establishment of the Project Manager Cost Reduction Program (PM CRP). Various benefits are provided by the company to employees.</td>
</tr>
</tbody>
</table>
who are successful in innovating such as participating in the International Quality and Productivity Convention (IQPC) event, several bonuses from the actualization of savings from the CRP program, etc.

**H4: Competence Impact on Organizational Performance**

Evidence for the competence impact on organizational performance is obtained from a Critical Ratio of 5,123 which is above the cut-off value critical ratio table T of 5% of 1.967, which explains the existence of competence that significantly affects organizational performance. The magnitude is 1.70 or 170%, which means that a 1% increase in competence will increase organizational performance by 170%. The researcher found that there were several standards in submitting promotions such as good relations with internal and external companies (in Grade 3 and above) and achievements during work. This is a trigger for employees to continue to improve their competence, both formally such as through lectures and skills certification, or through relationships that will support future work.

**H5: Knowledge Sharing Impact on Organizational Performance**

Evidence for the knowledge sharing impact on organizational performance is obtained from a Critical Ratio of 5,960 which is above the cut-off value critical ratio table T of 5% of 1,967, which reveals the existence of knowledge sharing significantly affects organizational performance. The magnitude is 0.99 or 99%, which means that if knowledge sharing increases by 1%, organizational performance will increase by 99%. Researchers found that the diversity of educational background, ethnicity, region, and age is normal at PT Pupuk Iskandar Muda. This is deliberately done so that the mindset of employees develops which is supported by a knowledge management (KM) program. Plus coaching to become KPIs at Grade 3 and above so that by doing so, knowledge sharing is expected to occur naturally and continuously.

**H6: Innovation Impact on Organizational Performance**

Evidence for the innovation impact on organizational performance is obtained from the Critical Ratio of 3.854, which is above the 5% T table critical ratio cut-off value of 1.967, which reveals that the existence of innovation significantly influences organizational performance. The magnitude is 0.86 or 86%, which means that if innovation increases by 1% it will increase organizational performance by 86%. Researchers found that the regulations that apply to companies are getting stricter while upgrading technology requires large costs and a short amount of time. This triggers the company and employees as its assets to develop and adapt. The easiest adaptation is to innovate. This means that with existing resources, effectiveness and efficiency are maintained at maximum conditions. If innovation is not carried out continuously, the company will not survive in the dynamic business world.

**H7: Innovative Behavior Impact on Organizational Performance**

Evidence for the innovative behavior impact on organizational performance is obtained from the Critical Ratio of 3.335, which is above the 5% T table critical ratio cut-off value of 1.967, which reveals that the existence of innovative behavior significantly influences organizational performance. The magnitude is 1.02 or 102%, which means that if innovative behavior increases by 1% it will increase organizational performance by 102%. Researchers found that the programs implemented at PT Pupuk Iskandar Muda, such as the Quality Control Group (GKM), Knowledge Management (KM), Cost Reduction Program (CRP), Management of
Change (MOC), and many more, were aimed at cultivating innovative behavior. The company supports it by providing training, outreach, comparative studies, and even awards for employees who are assessed according to standards as capable of achieving the targets. This is following the BUMN values, namely AKHLAK (Trustworthy, Competent, Harmonious, Loyal, Adaptive, and Collaborative), especially the points of competence and adaptiveness.

**Indirect Hypothesis**

**H8: Competence Impact on PT Pupuk Iskandar Muda's Organizational Performance Through Innovative Behavior**

Testing the mediating effect of innovative behavior on the competence impact on organizational performance is explained as follows.

![Figure 3. Result of Sobel Testing for Hypothesis 8](image)

From the Sobel test, t-statistics of 3.121 and p 0.001 were obtained. Thus, it shows that innovative behavior mediates the competence impact on the organizational performance of PT Pupuk Iskandar Muda. These results show that testing hypothesis 8 is accepted. The calculation result for the path C' using the Sobel test is visually figured in the chart below.

![Figure 4. Hypothesis 8 Mediation Chart](image)

These values show that innovative behavior plays a large role in mediating the competence impact on PT Pupuk Iskandar Muda’s organizational performance. Pupuk Iskandar Muda is 150.4%, which means that with increasing innovative behavior it will be able to increase the influence of competency in improving the organizational performance of PT Pupuk Iskandar Muda by 150.4%

**H9: Knowledge Sharing Impact on PT Pupuk Iskandar Muda's Organizational Performance Through Innovative Behavior**

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The results of testing the knowledge sharing impact on the organizational performance of PT Pupuk Iskandar Muda through innovative behavior using the Sobel test as presented in Figure 5 below

**Figure 5. Result of Sobel Testing for Hypothesis 9**

From the Sobel calculation as presented in the figure above, it shows the t-statistic value is 1.983>1.96 and p 0.04<0.05. These indicate that innovative behavior mediates the impact of knowledge sharing on the organizational performance of PT. Pupuk Iskandar Muda. These results also show that testing hypothesis 9 is accepted. The calculation result for the path C' using the Sobel is visually figured as follows.

Gambar 6. Hypothesis 9 Mediation Chart

These values indicate that innovative behavior plays a large role in mediating the knowledge-sharing impact on the organizational performance of PT Pupuk Iskandar Muda is 21%, which means that increasing innovative behavior will be able to increase the influence of knowledge-sharing in improving the organizational performance of PT Pupuk Iskandar Muda by 21%.

H10: Innovation Impact on PT Pupuk Iskandar Muda's Organizational Performance Through Innovative Behavior

The results of testing the innovation impact on the organizational performance of PT Pupuk Iskandar Muda through innovative behavior using the Sobel test as presented in Figure 5 below
From the Sobel calculation as presented in the figure above, it can be seen that the t-statistic value is 2.890 > 1.96 and the p is 0.003 < 0.05. These indicate that innovative behavior mediates the impact of innovation on the organizational performance of PT Pupuk Iskandar Muda. These results also show that hypothesis testing 10 is accepted. The calculation result for path C' using the Sobel test, is figured below.

These values indicate that the large role of innovative behavior in mediating the innovation impact on the organizational performance of PT Pupuk Iskandar Muda is 88.5%, which means that by increasing innovative behavior, it will be able to increase the influence of innovation in improving the organizational performance of PT Pupuk Iskandar Muda by 88.5%

5. Conclusion

Test results at PT Pupuk Iskandar Muda prove that directly, competence influences innovative behavior, knowledge sharing significantly influences innovative behavior, innovation significantly influences innovative behavior, competence significantly influences organizational performance, knowledge sharing significantly influences organizational performance, innovation significantly influences organizational performance, and innovative behavior significantly influences organizational performance. Furthermore, the results of indirect hypothesis testing prove that innovative behavior mediates the competence impact on organizational performance, innovative behavior mediates the knowledge sharing impact on organizational performance, and innovative behavior mediates the innovation impact on organizational performance. These findings show that innovative behavior for all mediation models acts as a partial mediator, which can be used as a mediator or not. Thus, modeling for improving organizational performance has been proven to be a function of increasing competence, increasing knowledge sharing, increasing innovation, and strengthening innovative behavior within the organization. This finding is a premise that contributes to the development of causality theory in management science, and can also be used as a basis for further research. For practitioners, especially this study, namely PT Pupuk Iskandar Muda, this model can be used as a basis for preparing strategies to improve organizational performance in the future.

References


