The Influence of Knowledge Sharing on Academic Performance

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Abstract—This research aims to understand the effect of knowledge sharing on academic performance. Two processes of knowledge sharing are distinguished: donating and collecting. This research is intended to contribute to academic institutions in improving academic performance. The sample in this study amounted to 346 samples consisting of students at the Indonesian Economy Building School (STIE INABA) by using probability sampling techniques. The analysis technique used is multiple linear regression. The variables studied are knowledge sharing (knowledge donating and knowledge collecting) and academic performance. There search findings indicate that knowledge donating and knowledge collecting are positively significant related to academic performance. Based on these results, a number of theoretical and practical implications are discussed, and suggestions for further research are presented.

Keywords—Knowledge Sharing; Academic Performance

I. INTRODUCTION

Polri, in order to improve the ability of foreign languages in its institutional environment, has a Language School, known as Sekolah Bahasa (Sebasa). The presence of Sebasa Polri is very much needed to improve the capabilities of the National Police HR in mastering foreign languages. Sebasa has a position under the Indonesian National Police Training and Education Institute which teaches six languages, namely English, French, Arabic, Mandarin, Japanese, and Indonesian for Foreign Student Officer. In accordance with its vision, Sebasa Polri is expected to produce professional police personnel who have the ability to establish communication with international languages in carrying out their duties, both at home and abroad, so that they can become part of the world community (world class community). Sebasa Polri in an effort to realize the vision and mission, it requires the support of innovative human resources in carrying out their duties.

According to Ramamoorthy, Flood, Slattery, & Sardessai that in the current era of rapid change, organizations face a greater demand from their environment to engage in innovative behavior to create and provide competitive services, and to lead the change process itself [1]. To complete tasks successfully, organizations rely on members of the organization to innovate, method, and operation. Innovative behavior of organizational members according also as important sources of organizational innovation and as drivers of sustainable competitiveness, which will eventually impact on organizational performance [2-5]. For Sebasa Polri, the innovative behavior of employees is also very important in carrying out their duties, so that they can produce members of the National Police who are able to master foreign languages well.

In optimizing the innovative behavior of employees in an organizational environment, factors that can encourage it are needed. One important factor needed to encourage the emergence of innovative behavior is transformational leadership. According to Pieterse, Knippenberg, Schippers, & Stam, transformational leadership is also a source of inspiration and motivation for organizational members [6]. Both of these important sources in generating innovation behavior. The literature study conducted by Rosing, Frese, & Bausch also showed that transformational leadership is a driver of innovative behavior [7]. While studies are conducted by Günzel-jensen, Hansen, Jakobsen, & Wulff, Hansen and Pihl-Thingvad also showed that transformational leadership is a determinant of innovative behavior [8,9].

Organizational learning is also a factor that is urgently needed to foster a positive climate for creating innovative behaviors of organizational members. Innovation comes from learning activities, so learning in an organizational environment must be strengthened so that each member of the organization can be motivated to learn and further make innovations that are useful for their work. The ability to recognize new values, disseminate and implement them in organizations is an important factor for creating innovation capabilities [10]. Eldor & Harpaz also explains that the learning climate in an organization is important in encouraging competitiveness which is a reflection of the innovative behavior of organizational members [11]. Studies conducted by Lin & Lee also proved that organizational learning is a factor that significantly influences innovative behavior [12]. Especially in the public environment, research conducted by Miao, Newman, Schwarz, and Cooper also showed the important role of leadership in influencing innovative behavior [13].

In addition to transformational leadership and organizational learning, both of which are external factors, organizational member engagement as an internal factor is also an important driving factor for the growth of innovative behavior. This is according to Maden because work attachments can increase the proactive behavior of
organizational members in the workplace both directly and indirectly, and proactive behavior is an important capital for the growth of innovative behavior of organizational members [14]. Individuals who have strong work attachments will show genuine effort in carrying out their duties so that creative efforts will emerge to obtain optimal work results. Previous research as conducted by Agarwal, Aryee, Walumbwa, Zhou, and Hartnell also confirmed that work engagement has a significant effect on innovative behavior [15,16].

Thus, in the Sebasa Polri Environment, it is very important to ensure that the teaching staff succeeds in achieving the vision and mission of Sebasa Polri. Therefore, leadership factors, organizational learning, and work engagement must be a concern for management in the special Sebasa Polri environment and Polri in general. Departing from this thought, this study takes the title of Effect of Transformational Leadership, Organizational Learning, and Work Skills on Innovative Training of Language Educators in the Indonesian Language School.

A. Innovative Behavior

Hill and Hult stated: "innovation is the development of new products, processes, organizations, management practices, and strategies" [17]. Innovation does not only lie in creating new products but also can be seen from the work process and the strategies implemented. Rubenstein cited by White and Bruton also revealed, "innovation is defined as the new and improved products, processes, materials, and services that are developed and transferred to the market and/or market where they are appropriate" [18]. Therefore, it is increasingly assertive that innovation does not only lie in creating new products but also lies in the process, so that process innovation can produce better products or service.

Innovation is the practical implementation of a new device or process. Added, that innovation does not only produce creative ideas but includes applying ideas to some new tools or processes. Tidd, Bessant, and Pavitt saw that innovation is not only a matter of opening new markets, "innovation is not just about opening up new markets - it can also offer new ways of serving established and mature ones" [19]. Furthermore, it was explained that the ability to build relationships and find opportunities is an important factor needed in innovation.

Scott and Bruce in Neiva, Mendonça, & Ferreira explained the concept of innovative behavior as follows: "innovative behavior is defined by individuals to generate creative ideas, promote ideas for others, develop plans for implementing these new ideas, and uncovered new technologies, processes, techniques, or ideas about a product" [20].

Based on the description above, it can be synthesized that innovative behavior is something that someone is directed to increase effectiveness in contributing to the achievement of organizational goals: finding creative ideas, promoting ideas, seeking support, and implementing ideas.

B. Transformational Leadership

Daft stated, "transformational leadership is involved, complex processes that bind leaders and followers together in the transformation of changing followers, organizations, or even whole nations. It involves leaders interacting with followers with respect to their emotions, values, ethics, standards, and long-term goals, and includes assessing followers' motives, satisfying their needs, and treating them as full human beings" [21].

Furthermore, Northouse provided a boundary for transformational leadership, namely, "transformational leadership is the process of person engages with others and is a connection that raises the level of motivation and morality in both the leader and the follower" [22]. While, Robbins and Judge provided an explanation of transformational leadership as follows: "transformational leadership is the leadership style that inspires followers to transcend followers self-interests for the good of the organization and is capable of having a profound and extraordinary effect on the follower's concern" [23].

Explanation of transformational leadership is also shared by Griffin & Moorhead "transformational leadership refers to the leadership that goes beyond ordinary expectations by transmitting a sense of mission, stimulating learning experiences, and inspiring new ways of thinking" [24]. Transformational leaders also motivate their subordinates to go beyond their personal interests for the good of the group, "transformational leaders who motivate people to transcend their personal interests for the good of the group" [25]. In addition, Avolio and Bass identified four dimensions of transformational leadership [26]. First, ideal leadership. Second, inspirational motivation. Third, intellectual stimulation. Fourth, individualized consideration.

Based on the explanation above, it can be synthesized that transformational leadership is a process of influencing subordinates by trying to inspire and motivate subordinates to work beyond expectations and make changes in a positive direction as measured by indicators: encouraging change, encouraging innovation, inspiring, setting an example, developing potential subordinates, build self-confidence, develop new ways of thinking, ability to motivate, build positive relationships, and respect subordinates.

C. Organizational Learning

Hilgard and Bower were quoted as saying by Vera, Crossan, & Apaydin, "organizational learning is the process of change in individuals and shared actions" [27]. Furthermore, George and Jones, "organizational learning refers to the process through which managers seek to increase organization members' desire and ability to make decisions that continuously raise organizational efficiency and effectiveness" [28].

Furthermore, according to Gill organizational learning is described as follows: (1) assimilating information, (2) translating knowledge into knowledge, (4) applying knowledge to real needs, (5) receiving feedback to revise the information and reshape the knowledge [29]. Organizational learning is also related to the activity of new knowledge as stated by de Castro, Sáez, López, and Dorado, the following [30]: Organizational learning is the accumulation of new knowledge, widening the intellectual capital stocks, and thus
becoming the most relevant organizational capabilities and main source of value in organizational creation. A view that is not widely stated by White and Bruton, "organizational learning is the acquisition of knowledge through application and mastery of new information, tools, and methods" [18].

Based on the conceptual study above, it can be synthesized that the significance of regression using path analysis. According to Foster, Barkus, and Yavorysk, path analysis is a multiple regression technique for causal relationships between variables that not only discuss causal relationships but also ask questions about the minimum number of relationships (reciprocal direction) and direction [34]. To calculate the path analysis used by the SPSS program for Windows. To test the significance of the path coefficient using a t-test, which is compared with t table. If t count> t-table, then H1 is accepted and Ho is rejected; conversely, if t counts <t-table, then H1 is rejected and Ho is accepted.

### III. RESULTS

Description of research variables consisting of transformational leadership, organizational learning, work-relatedness, and innovative behavior are presented in descriptive statistics which include minimum scores, maximum scores, range (range), mean, mode, median, standard deviation, and variance.

Testing the analytical requirements used in this study include the normality test, linearity test, and regression significance test. The normality test in this study uses estimated error data. By using the Lilliefors test, the data are declared normal if Lcount < Ltable, and the data are declared abnormal if Lcount > Ltable. The following is a summary of the results of the normality test calculations for each estimated error.

#### TABLE I. SUMMARY OF ERROR ESTIMATED NORMALITY TEST ESTIMATED ERROR WITH LILLIEFORS TEST (LO)

| Regression Estimation Error | Lcount (Lo) | Ltable α = 0.05 | Ltable α = 0.01 | Conclusion |
|-----------------------------|-------------|-----------------|-----------------|------------|
| Y on X1                     | 0.084       | 0.077           | 0.090           | Normal     |
| Y on X2                     | 0.046       | 0.077           | 0.090           | Normal     |
| Y on X3                     | 0.036       | 0.077           | 0.090           | Normal     |
| X3 on X1                    | 0.062       | 0.077           | 0.090           | Normal     |
| X3 on X2                    | 0.052       | 0.077           | 0.090           | Normal     |

Note: Ltable = α = 0.05 = 0.866 / √n ; α = 0.01 = 1.331 / √n

Meanwhile, to test the significance of regression using Analysis of Variance (ANOVA). If the value of Fcount > Ftable at the error rate (α) of 0.05, then the regression equation is significant, and at the error rate (α) 0.01, the equation is very significant. The results of the evaluation of regression significance for each influence of transformational leadership, organizational learning, and work linkages to innovative innovations are summarized in the following table:

#### TABLE II. SUMMARY OF LINEAR REGRESSION TEST RESULTS

| Variable | Equation Model | Linearity Test | Conclusion |
|----------|----------------|----------------|------------|
|          |                | Fcount | Ftable | α = | α = |
|          |                |        |        | 0.05 | 0.01 | |
| Y on X1  | Y = 102.06 + 0.246 X1 | 28.652 | 2.67 | 3.91 | Significant and Linear |
|          |                 | 1.206 | 1.54 | 1.84 |                  |
| Y on X2  | Y = 68,603 + 0.450 X2 | 69.995 | 2.67 | 3.91 | Significant and Linear |
|          |                 | 0.957 | 1.47 | 1.74 |                  |
A. Hypothesis Testing

To accept the research hypothesis, structural analysis is divided into the following three structures:

Substructure equation 1: The results of the calculation of path coefficients obtained by the direct influence of transformational leadership, organizational learning, and work engagement to innovative motivation.

\[ Y = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \]
\[ Y = 0.149 X_1 + 0.185 X_2 + 0.477 X_3 \]

Substructure equation 2: The results of the calculation of path coefficients obtained by the direct influence of transformational leadership, organizational learning, and work engagement.

\[ X_4 = \beta_{31} X_1 + \beta_{32} X_2 \]
\[ X_4 = 0.134 X_1 + 0.739 X_2 \]

Path coefficients and \( t \)-count values can then be seen in the following path diagram:

Fig. 1. Path coefficient and \( t \)-count leadership, learning, and work organizations in the Polri Language School educators.

These results indicated that the theoretical models tested have represented or are in accordance with the structure of equations based on empirical data. Thus, the results obtained from this study are in accordance with existing theories.

B. Discussion

Testing the first hypothesis proves that leadership has a positive direct effect on innovative behavior. This finding provides empirical evidence that an increase in transformational leadership will have an impact on increasing innovative behavior. These findings explain the relationship of transformational leadership to innovative behavior seen from the statement of Daft that, one style of leadership, referred to as transformational leadership, is particularly suited for bringing about change [21]. Top leaders who use a transformational leadership enhancing organizational innovation style, both directly, by creating a compelling vision, and indirectly, by creating an environment that supports exploration, experimentation, risk-taking, and sharing of ideas.

Testing the second hypothesis proves that organizational learning has a positive direct effect on innovative behavior. This finding provides empirical evidence that improving well-programmed organizational learning will increase innovative behavior, as described by Hartell, Zerbe, and Ashkanasy, following knowledge and learning processes have gained increased legitimacy in society and organizations [35]. They are known as an order to survive, innovate, and increase competitiveness [36].

Testing the third hypothesis proves that work linkages have a positive direct effect on innovative behavior. These results indicate that the high and low of innovative behavior is largely determined by the relationship of work that grows in the personal education staff. The theoretical findings above which state working work relationship directly influence innovative behavior are explained by Yalabik, Rayton, and Rapti, engaged employees show more personal initiative and innovative work behavior [37]. They tend to be more involved and socially connected to their work, which allows more opportunity to contribute to improvement and innovation. Gallup data indicates that 59% of engaged employees said that their jobs brought out their most creative ideas.

Testing the fourth hypothesis proves that transformational leadership has a positive direct effect on work relatedness. These results indicate that the high and low work relationship is determined by the power of transformational leadership. The above theoretical findings that state transformational leadership have a positive direct influence on work relevance, explained by Ayman and Lauritsen that "transformational leadership has a stronger positive relation with employee work engagement when the follower has positive characteristics" [38]. Transformational leadership has a stronger positive relationship with employee engagement if followers have positive characteristics. Barling also emphasized that "transformational leadership is associated with higher levels of employee work engagement. In turn, higher level of knowledge and initiative at the team level" [39].

Testing the fifth hypothesis proves that organizational learning has a positive direct effect on work relatedness. These results indicate that the high and low correlation of work is determined by conducive organizational learning. The theoretical findings above according to Bhaskar and Mishra are
related to the association of organizational learning with work attachments explaining "two dimensions (connecting the organization to the environment and empowering employees) out of the seven dimensions of learning organizations as significant predictors of work engagement. The two dimensions of organizational learning, namely connecting organizations to the environment and empowering employees, are significant predictors of job participation" [40]. Eldor and Harpaz also emphasized "employees’ perceptions of organizational resources, such as perceived learning climate, as antecedent to employee engagement” [11].

Testing the sixth hypothesis proves that Transformational Leadership has a positive direct effect on Organizational Learning. These results indicated that high and low Transformational Leadership is largely determined by conducive organizational learning. The theoretical findings above according to Gordon are as follows: transformational leadership behaviors have a positive impact on organizational behaviors by inspiring organizational learning...leadership has a greater impact on organizational learning than servant leadership [41]. Nevertheless, both theories positively impact organizational performance through organizational learning.

IV. CONCLUSION

The results of this study reinforce the theory that: First, improvement and improvement of leadership in using power and influence to focus on aspects of the quality of students on an ongoing basis to improve the expected innovative behavior for students. Second, improvement and improvement of organizational learning carried out by organizations in a well-programmed and conducive manner will enhance innovative behavior. Schools must have programs that innovate and are of high quality as values, principles, traditions, and ways of doing work behavior that can affect the workings of members of the organization acting to achieve the power of innovative behavior to students. Third, improvement and increased commitment to the task that is strong in the teacher will increase innovative behavior. Commitment to a strong task is the attachment and loyalty of a teacher in carrying out the tasks assigned to achieving superior innovative behavior according to the expectations and satisfaction of students. Fourth, improvement and improvement of leadership leads to the achievement of organizational goals. Fifth, the improvement and improvement of organizational learning carried out by organizations can apply good values, norms, traditions, and work behavior to members of organizational stakeholders as the power to carry out tasks according to the responsibilities given.

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