THE DETERMINANTS OF PERFORMANCE INFORMATION USE FOR LOCAL GOVERNMENT INSTITUTIONS

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ABSTRACT
This study examines the determinants of performance information use by employing the organizational learning theory and the leadership role in the organizational learning. The population of this study is 424 government officials from all institutions in Kediri City, East Java, in which 18.87% sample (80 respondents) could be processed. The finding empirically supports that performance measurement system, organizational culture, and transformational leadership positively affect to performance information use. Moreover, transformational leadership indirectly affects to performance information use through performance measurement system and organizational culture. Overall, the performance management purpose could be achieved if the performance measurement system is within the appropriate organizational culture and they cooperate with the role of transformational leadership on organizational learning, thus encouraging the performance information use for continuous improvement process.

Keywords: Performance Information Use, Performance Measurement System, Organizational Culture, Transformational Leadership

INTRODUCTION
The wave of reformation for public sector management in developing countries becomes the focus of public watch due to the failure of organizational performance and the role of global institution which has put an agenda to implement good governance for public service (Marobela, 2008). Indonesia government also implements performance management as the form of public sector management reformation to meet public’s requirement and International Monetary Fund (IMF) for establishing good governance based on the applicable law of Inpres No.7/1999. Performance management is management practice which is based on the assumption that performance information identification and utilization is aimed to improve organizational performance (Moynihan, 2005; Moynihan and Landuyt, 2009; Walker et al., 2011; Kroll, 2015).

Performance management is effective if the performance information is obtained through performance measurement system which has been utilized to management control and decision making (Moynihan et al., 2012; Kroll, 2015). Therefore, performance information use is seen as critical stage which demonstrates real step of management in the process of achieving management reformation objective which is not only about compliance on formal regulation of performance measurement system (Kroll, 2015). However, some of former research on local government and local government institution in Indonesia only reveal that the implementation of performance measurement system is only a routine activities to fulfill the formal task as a form of accountability for shareholders but not yet directed performance information use for better management control and decision making (Sihalolo and Halim, 2005; Nurkhamid, 2008; Akbar et al., 2012).
The above phenomenon demonstrates a gap between theoretical perspective and performance management practice. Therefore, this research aims to explore the determinants of performance information use that should be conducted. To achieve the objective of this research, this study uses organizational learning theory. In the organizational learning theoretical framework, performance information use is a form of productive organizational learning so that it can be affected by structural aspects related to performance measurement system as well as cultural aspect related to organizational culture (Popper and Lipshitz, 2000a; Lipshitz et al., 2002; Barrados and Mayne, 2003). Further, leadership also takes a role on shaping the needed key conditions in the process of organizational learning (Popper and Lipshitz, 2000a; Popper and Lipshitz, 2000b). This study focuses on the role of transformational leadership since public sector organization commonly has performance objectives which are difficult to measure due to a weak relationship between extrinsic rewards and employee performance (Wright and Pandey, 2010) just as reflected in some local governments in Indonesia. Due to this condition, transformational leadership may have greater role in building trust on the employee and credibility on the new-built system to support the successfulness of management reformation.

This study explores the relationship between the performance information use and organizational learning so that the result of this study is expected to contribute to develop organizational learning theory and enrich performance management literature. Further, the result of this study provides an understanding on the determinants of performance information use as a feedback of local government to pay attention to those factors for the successfulness of management reformation.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

The performance information use is one of the stages of performance management cycle. This study conceptualizes performance information use as organizational learning since this stage does not occur in sudden. This stage is a process which is done intentionally and systematically by managers to learn some programs/activities which are measured through the obtained performance information from performance measurement system; next, it will identify problems and opportunities which then direct the manager to management controlling and better decision making as a continuous improvement to improve organizational performance (Barrados and Mayne, 2003; Moynihan, 2005; Taylor, 2011). Therefore, organizational learning theory becomes the foundation of performance information use. The determinants of performance information use in this theoretical framework will be further discussed in the following section.

Performance Measurement System

Structural aspect in organizational learning which is called as organizational learning mechanism (Popper and Lipshitz, 2000a) is “institutionalised structural and procedural arrangements that allow organisations to systematically collect, analyse, store, disseminate, and use relevant information about organizational performance”. The implementation of performance measurement system which is facilitated by formal regulations from the central government like Perpres No. 29/2014 and Permenpan & RB No. 53/2014 is organizational learning mechanism for public sector (Barrados and Mayne, 2003; Moynihan, 2005; Taylor, 2011).

The validity of performance measurement system plays important role in performance information use (The Urban Institute, 2002; Taylor, 2011; Losurdo et al, 2014). The validity of performance measurement system is highly defined by the routine of performance measurement system which runs well and has passed through a review and continuous...
improvement process so that it will enhance the quality of the system in a long term to produce valid and undistorted information (Taylor, 2011; Losurdo et al., 2014). The availability of valid and relevant information of performance information surely will encourage performance information use since there is a greater chance for manager to rely on the information in making a better decision for continuous improvement (Moynihan and Pandey, 2010). The findings of Moynihan and Lavertu (2012) and Dull (2009) provide an empirical proof that involvement in the Government Performance and Results Act (GPRA) routine has positive influence on performance information use. Thus, it leads to the following hypothesis:

H1: Performance measurement system has a positive effect on the performance information use

Organizational Culture

The cultural aspect in organizational learning is related to organizational culture which supports productive learning in organizational learning mechanism. It is not merely a ritualistic learning mechanism which brings to learning disability (Popper and Lipshitz, 2000a). Performance information use as a continuous learning process requires valid information, transparency, issue orientation, and accountability as the values of learning in organizational culture (Popper and Lipshitz, 2000a; Barrados and Mayne, 2003). Valid information refers to the willingness of organization members to present whole and undistorted information so that the information is relevant for performance information use. Valid information is about a willingness to reveal the implementation of a program transparently and openly for attaining feedback (transparency). Next, transparency focuses on performance facts so that there is an open communication in the organization which enables innovation improvement and learning (issue orientation). Finally, accountability will emerge due to employee’s awareness to be responsible for each successfulness or failure of their act as well as take the lesson from the conducted acts (Ellis et al., 1999; Popper and Lipshitz, 2000b). Those learning values focus on sustainable improvement process which are directed to openness, innovation, and change. Even though there is no empirical research which examines the role of learning culture on the performance information use, former research has provided empirical evidence that an organizational culture which is open to innovation and change influences performance information use (Sihalohi and Halim, 2005; Nurkamid, 2008; Moynihan and Pandey, 2010). Based on the review literature and former research, it leads to the following hypothesis:

H2: Organizational culture has a positive effect on the performance information use

Transformational Leadership

Leadership is one of the contextual aspects which takes a role in creating and promoting organizational learning (Lipshitz et al, 2002). Based on the review of literature and previous research, Popper and Lipshitz (2000b) conclude that transformational leadership is a leadership style which plays a role in organizational learning. It is related to four characteristics of transformational leadership which is commonly termed as “Four I’s” by Bass and Avolio (1994) like idealized influence as a leader should be charismatic to achieve great influence and power for his members, inspirational motivation as a leader should inspire his members by an idea that organization will be able to achieve great things due to extra effort, individual consideration as a leader should meet the emotional needs of his members individually, and intellectual stimulation as a leader should stimulate the intellectuality of his members by providing different perspectives for each problem.
With the characteristics that are possessed by a leader, transformational leadership is able to articulate organization’s vision and mission clearly, clarify organization’s objectives, and emphasize on the importance of goal attainment for the organization. Transformational leadership will maintain the performance achievement on the expected right track as an effort to achieve organization goals through encouraging performance information use to achieve innovation and learning objectives, not only just a mentoring (Kroll and Vogel, 2014). This emphasize will be followed by management at the lower level as well as bring a domino effect since transformational leader is a figure who as a function as a role model for his members so that he can affect the attitude and behavior of his members. The description above leads to the following hypothesis:

H3: Transformational leadership has a positive effect on the performance information use

However, the direct role of leadership on the performance information use reduces the role of leadership in managing the required condition to achieve management reformation success (Moynihan et al. 2012). Popper and Lipshitz (2000b) mention that an organization leader has central role in achieving effective organizational learning through creating organizational learning mechanism and instilling organizational culture which are needed in the learning process.

In the theoretical framework of organizational learning, the performance information use is affected by performance measurement system as an organizational learning mechanism (Popper and Lipshitz, 2000b; Barrados and Mayne, 2003). Performance information use needs valid and undistorted performance information which is generated from the routine of performance measurement system which runs well (Dull, 2009; Moynihan and Pandey, 2010; Moynihan and Lavertu, 2012). However, the routine of performance measurement system cannot be separated from the role of leadership. Transformational leadership is able to create the routine of performance measurement system which is facilitated by formal regulation by giving clear signs that the system is pertinent for organization and brings positive effect to cause an expected result during reformation which can affect thought, motivation, behavior, and belief of the manager on performance management credibility (Popper and Lipshitz, 2000b; Wright and Pandey, 2010; and Dull, 2009). Thus, the role of transformational leadership on the performance information use is an indirect effect or mediated by the factors which are influenced by transformational leadership (Moynihan et al, 2012).

Based on the description above, it comes to the following hypothesis:

H4: Transformational leadership will have indirect, positive effect on the performance information use through performance measurement system

Organizational culture with learning values focuses on continuous improvement which is directed to openness, innovation, and change so that it will put performance measurement system and performance information use as an accepted behavior in an organization (Popper and Lipshitz, 2000a; Moynihan, 2005; and Taylor, 2011). Organizational culture which is directed to openness, innovation, and change surely will encourage performance information use (Moynihan and Pandey, 2010; Sihaloho and Halim, 2005; Nurkhamid, 2008). On the other hand, transformational leadership also plays important role in instilling learning culture by creating trust and psychological safety in the learning process which reduce defensive behavior but improve learning values (Popper and Lipshitz, 2000b; Amitay et al., 2005; Salk and Schneider, 2009). Thus, the role of transformational leadership on the performance information use is indirect. A study of Moynihan et al. (2012) is the initial research which provides empirical evidence of the indirect role of transformational leadership on the
performance information use through organizational culture. This description leads to the following hypothesis:

H5: Transformational leadership will have indirect, positive effect on the performance information use through organizational culture

METHODS
Survey Procedure and Sample
The population of this research consist of 424 government officers from all public institutions of Kediri City. The sample criteria require that the government officers should have achieved particular position whom their main tasks and functions are related to program planning and arrangement, performance evaluation, and performance report so that they know the implementation of performance measurement system and the practice of performance information use in an institution. Questionnaire distribution is done by directly giving to the Head or Secretary of each institution and taking the result based on the appointment (pick up survey). Among 86 returned questionnaires, there are 80 useable questionnaires and 6 non-useable questionnaires. Non-useable questionnaire is due to incomplete filling and not serious involvement of the respondents as reflected from the negative statement in the questionnaires.

This study utilizes questionnaire that is developed from former research (Bass and Avolio, 1995; Ellis and Carridi, 1999; Julnes and Holzer, 2001; Moynihan and Lavertu, 2009; Taylor, 2011) which involves some stages of questionnaire arrangement. First, the researcher hires professional translator in English to ensure that there is no difference in the meaning or interpretation of the translated original instrument. Next, the researcher conducts a pilot test on the research instrument to make sure that question items in the questionnaire are sufficient, correct, and understandable for the research sample. The pilot test involves respondents who are not included in the research sample like the auditor of Kediri City and Local Government Development Planning Board of Kediri City. The pilot test result which is retrieved by using PLS algorithm calculation demonstrates that the 56 indicators of the research instrument have met validity and reliability requirements.

Measurement
Measurement for each construct can be further explained below:

1. Performance information use capture the extent to which respondent reported performance information for a particular set of activities. The measurement of this construct uses an instrument developed by Moynihan and Lavertu (2009) and Julnes and Holzer (2001). Likert scale is used as measurement scale ranging from never (1) to always (7).

2. Performance measurement system evaluates how far the performance measurement system becomes a routine which runs well to improve the quality of the system. The measurement of this construct uses an instrument developed by Taylor (2011) which is added by some indicators of performance data analysis and performance information distribution based on Perpres No. 29/2014 and Permenpan dan RB No. 53/2014. Likert scale is used as measurement scale ranging from strongly disagree (1) to strongly agree (7).

3. Organizational culture is respondent’s perception on organizational learning values as accepted, adopted, and distributed values in an organization. The measurement of this construct uses an instrument developed by Ellis and Carridi (1999) which has been
used in Amitay et al.’s (2005) and Salk and Schneider’s (2009) research. Likert scale is used as measurement scale ranging from strongly disagree (1) to strongly agree (7).

4. Transformational leadership is respondent’s perception on the characteristics of transformational leadership as what they perceive on their leader. The measurement of this construct adopts MLQ Firm 5X-Short instrument developed by Bass and Avolio (1995) which has been used in Indrayanto’s (2012) research in the context of public sector in Indonesia. Likert scale is used as measurement scale ranging from never (1) to always (7).

RESULTS AND DISCUSSION

This study utilizes PLS with SmartPLS 2.0 software to examine both outer and inner model simultaneously.

Outer Model

Convergent validity is related to the rule of thumbs that the measurement instrument of a construct should have good correlation. Validity test uses rule of thumbs for loading factor > 0.7, AVE > 0.5, and communality > 0.5 (Chin, 1995). To achieve the rule of thumbs, some indicators which the loading factors is less than 0.5 are dropped gradually from its construct. However, indicators with loading factor between 0.5 – 0.7 are not necessary to drop as long as its AVE and communality scores are greater than 0.5 (Hartono, 2011). Table 1 demonstrates that the instruments used in this research meet convergent validity requirement.

<table>
<thead>
<tr>
<th>Construct</th>
<th>AVE</th>
<th>Communality</th>
<th>Cronbach’s Alpha</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Information Use</td>
<td>0.540</td>
<td>0.540</td>
<td>0.826</td>
<td>0.874</td>
</tr>
<tr>
<td>Performance Measurement System</td>
<td>0.532</td>
<td>0.532</td>
<td>0.779</td>
<td>0.850</td>
</tr>
<tr>
<td>Organizational Culture</td>
<td>0.543</td>
<td>0.543</td>
<td>0.791</td>
<td>0.855</td>
</tr>
<tr>
<td>Transformational Leadership</td>
<td>0.510</td>
<td>0.510</td>
<td>0.925</td>
<td>0.935</td>
</tr>
</tbody>
</table>

Discriminant validity is the next step of testing for outer model. Discriminant validity is related to the rule of thumbs that the measurement instrument of different constructs should not have a good correlation. The construct of this study has met discriminant validity since the root of AVE for each construct is greater than its correlation among one construct to the others in that model (Chin et al. 1997). The result is presented in Table 2.

<table>
<thead>
<tr>
<th>OC</th>
<th>PIU</th>
<th>PMS</th>
<th>TL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Culture (OC)</td>
<td>0.740</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance Information Use (PIU)</td>
<td>0.430</td>
<td>0.735</td>
<td></td>
</tr>
<tr>
<td>Performance Measurement System (PMS)</td>
<td>0.190</td>
<td>0.419</td>
<td>0.730</td>
</tr>
<tr>
<td>Transformational Leadership (TL)</td>
<td>0.495</td>
<td>0.652</td>
<td>0.364</td>
</tr>
</tbody>
</table>

Note: Italicised diagonal are the square root of AVE.
Reliability is the final step of testing for outer model. Reliability test is done to assess the stability and consistency of an instrument which measures particular concept. Reliability test uses rule of thumbs of Cronbach’s alpha score which should be greater than 0.6 with composite reliability greater than 0.7 (Hartono, 2011). Table 2 demonstrates that the construct is reliable based on the pre-determined rule of thumbs.

**Inner Model**

**R Square**

Structural model in PLS is evaluated from its $R^2$. The value of $R^2$ of the performance information use construct is 0.477. It means that the variance of performance information use construct can be explained by performance measurement system, organizational culture, and transformational leadership as many as 47.7 percent.

**Hypothesis Testing**

**Direct Effect**

The hypothesis of this research is a one-tailed hypothesis so that it requires a level of confidence reaching 95% (at 5% of alpha) to accept the hypothesis if the value of t-statistic is greater than 1.64. Table 3 and Figure 1 present the hypothesis testing results of the main influence which is further described below.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationship</th>
<th>Coefficient</th>
<th>T-Statistics</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>PMS -&gt; PIU</td>
<td>0.212</td>
<td>4.037</td>
<td>Significant</td>
</tr>
<tr>
<td>H2</td>
<td>OC -&gt; PIU</td>
<td>0.152</td>
<td>2.526</td>
<td>Significant</td>
</tr>
<tr>
<td>H3</td>
<td>TL -&gt; PIU</td>
<td>0.503</td>
<td>8.189</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Note: PIU – Performance Information Use; PMS – Performance Information Use; OC – Organizational Culture; TL – Transformational Leadership

The test result provides empirical evidence that H1 is supported. It implies that better use performance measurement system results in greater possibility to utilize performance information. This research is relevant with former research result from Dull (2009), Moynihan and Lavertu (2012), and Moynihan and Pandey (2010). The test result provides empirical evidence that H2 is supported. It means that greater organizational learning culture results in greater performance information use. Organizational culture with learning values will place the routine of performance measurement system and performance information use as learning behavior in an organization since those values focus on continuous improvement which is always directed to openness, innovation, and change. This result is relevant with former research of Sihaloho and Halim (2005), Nurkhamid (2008), and Moynihan and Pandey (2010). The test result provides empirical evidence that H3 is supported. It indicates that greater transformational leadership style as performed by the leader will result in greater performance information use. This result is different from Kroll and Vogel’s (2014) research in Germany local government as they provided empirical evidence that transformational leadership does not significantly influence performance information use. It is due to the...
strong paternalistic culture in Indonesia so that the successfulness of a reformation is defined by the leader of the higher bureaucracy officer (Mariana, 2006).

A leader who practices transformational leadership style will be an ideal role model for his members. In the context of local government, the mayor/regent who is oriented to organizational objective attainment will do his effort to integrate performance information and management control for encouraging performance information use as continuous improvement process. The act of the mayor/regent will be followed by the head of institution and also lower management level since transformational leadership figure is a charismatic figure and a role model for his members that triggers domino effect (Avolio et al., 1987).

Mediation Role Hypothesis Testing (Indirect Effect)

Mediation effect testing in this study follows the rule of Baron and Kenney (1986) as they stated that a test can be run if the main effect (direct relationship between exogenous variable and endogenous variable) is significant. In the direct effect testing result presented in Table 3, it shows that transformational leadership positively and directly influences performance information use (t-statistic 8.189 > 1.64), so that the mediation test can be further proceeded. The result of mediation effect testing is presented in Table 4; further, the structural modeling hypothesis test is presented in Figure 2.

The test result provides an empirical finding that H4 is supported. Performance measurement system mediates partially the role of transformational leadership on performance information use since the main effect remains significant when the indirect test is run simultaneously.

This result implies that transformational leadership can influence performance information use by supporting and facilitating the implementation of real and sufficient performance measurement system. As the source of idealized influence, this support will enhance trust and credibility of performance measurement system in improving organizational performance (Dull, 2009). It will encourage the routine of performance measurement system which runs well and ensure performance information availability which is needed at the stage of performance information use (Moynihan et al. 2012). Next, the available and strategic management related-performance information will trigger performance information use by the head of institution as well as management at the lower level (Ho, 2006; Moynihan and Pandey, 2010).
Table 4. Summary of Hypothesis Testing Results: Indirect Effect

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationship</th>
<th>Coefficient</th>
<th>T-Statistics</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4</td>
<td>TL -&gt; PIU</td>
<td>0.652</td>
<td>17.772</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>TL -&gt; PMS</td>
<td>0.364</td>
<td>6.906</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PMS -&gt; PIU</td>
<td>0.208</td>
<td>3.487</td>
<td></td>
</tr>
<tr>
<td>H5</td>
<td>TL -&gt; PIU</td>
<td>0.652</td>
<td>17.772</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>TL -&gt; OC</td>
<td>0.495</td>
<td>9.867</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC -&gt; PIU</td>
<td>0.135</td>
<td>2.427</td>
<td></td>
</tr>
</tbody>
</table>

Note: PIU – Performance Information Use; PMS – Performance Information Use; OC – Organizational Culture; TL – Transformational Leadership

The test result provides empirical evidence that H5 is supported. Organizational culture partially mediates the role of transformational leadership on performance information use since the main effect remains significant when the indirect test is run simultaneously. The result of this study implies that transformational leadership can influence performance information use after nurturing organizational culture with learning values. Performance information use can be perceived as an extra role which may hinder manager that can cause defensive behavior toward performance management implementation. This condition requires the role of transformational leadership to instill organizational learning culture (Amitay et al., 2005; Salk and Schneider, 2009; Moynihan et al., 2012) after creating psychological safety for employees during learning process (Popper and Lipshitz, 2000b). The successfulness and failure of the program/activity implementation is seen as learning process so that it will reduce defensive behavior but improve learning values in an organization. Organizational culture should be open to change and innovation so it can encourage awareness of the employees that the performance information use is a critical stage which should be taken to improve organizational performance.
CONCLUSION

This research examines the determinants of performance information use which is developed by using organizational learning approach (Popper and Lipshitz, 2000a) and the role of leadership in organizational learning (Popper and Lipshitz, 2000b). The result of this study proves that performance measurement system, organizational culture, and transformational leadership are the determinants of performance information use. This finding indicates that the performance information use is a learning process in an organization.

Some researches have explored the factors which influence performance information use; yet, only a few of those researches which are able to demonstrate the relationship of performance information use and organizational learning. However, the concept of organizational learning is the key assumption which supports performance management reformation (Moynihan and Landuyt, 2009). This research has proven empirically about the relationship between performance information use and organizational learning at Kediri City government. Thus, the model of this research can be further examined for other local governments in Indonesia and other developing countries for proving its consistency and better generalization. Also, this study has proven empirically about the significant role of transformational leadership on the successfulness of performance management reformation implementation. It implies that leader’s involvement in performance management implementation is highly needed to direct the expected change in the reformation.

REFERENCES


