Analysing the Measurement System and Business Loans Performances: A Case Study of People's Credit Bank (BPR-BKK) in Central Java, Indonesia

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Abstract

This study analyses the performance measurement system and business loans' performance at BPR BKK in Central Java. The research object is the internal control employee (SPI) as an auditor. This study is an empirical study using a convenience sampling technique with data collection. Data collected through distributing 200 questionnaires at BPR BKK, in Semarang. From 92 respondents (53%) of 58 old internal control employees, 12 risk management personnel and 22 internal auditors have provided answers. Data analysis using the Structural Equation Model examines the relationship between observed variables and latent variables. The results obtained through hypothesis testing indicate that loan performance significantly affects the performance measurement system. Loan performance has a significant effect on management control. Loan performance has a significant effect on organisational learning. Loan performance has a significant effect on employee attitudes.
Keywords
Business loan performance, loan measurement system, management control, organisational learning, and employee attitudes, people’s credit bank

1. Introduction
Performance appraisal of a business entity uses financial performance more often. It was developed until the 1980s. Various financial measures, among others, Return on Capital Employed (ROCE), Return On Investment (ROI), Economic Value Added (EVA), and others. According to Kaplan and Atkinson (1998), Return On Capital Employed (ROCE) is a tool to evaluate a company's efficiency and effectiveness in using the company's financial and physical assets to increase shareholder value. Return On Investment (ROI) shows a company's ability to generate profits from assets used in company activities or business units. ROI is a measurement that is very commonly used to evaluate performance on investment. Meanwhile, Economic Value Added (EVA) is a measurement of financial performance by reducing the average investor's capital cost.

Thus, EVA is obtained by reducing operating profit after tax by the total cost of capital (Gunawan, 2015). Ali (2004) states that credit performance can be seen from ratios such as Loan to Equity (LTE), which is the ratio used to determine the appropriate source of bank funds. The smaller this ratio, the worse the loan quality bank's ability managing credit. In this case, reduce the number of problem loans. Credit Risk Ratio (CRR) is the ratio used to determine bank management's ability to minimize risks that occur. In this case, it can provide an overview of bank credit failure rates. Where the higher the ratio, the unhealthier bank credit is. The credit ratio occurs when a customer fails to repay part, or all of the credit received from the bank (non-performing loans). Provision for Loan Losses (PLL) is a ratio used to measure bank credit management's effectiveness. Whether many experience credit jams or not, in other words, it is used to determine the percentage of earning asset write-offs incurred compared to the amount of credit extended.

Performance is the achievement of certain job requirements that can be directly reflected in the output produced in both quantity and quality (Simamora, 2002). Financial performance will be good if it is supported by related nonfinancial aspects that encourage increased financial performance. Correcting various weaknesses in financial performance measures, Kaplan and Norton (1992) developed a performance measurement concept known as the Balanced Scorecard. The balanced Scorecard emphasizes that financial and nonfinancial measures must be part of the information system for workers in every company line (Kaplan and Norton, 1996). Furthermore, from the aspect of objectives and measures, the Balanced Scorecard views the company's performance from four perspectives: learning and growth, financial, customer, and internal business processes. The Balanced Scorecard emerged as an improvement in the traditional way of measuring business performance that focuses more on financial performance. This study examines the role of SPM, especially SPK, in improving loan performance (credit) at Rural Banks (BPR). The assessment that will be countered is whether the relationship between MSS and loan performance (credit) can be explained by attitudes toward risk and organizational learning (balanced Scorecard). This research is very minimal in literature, maybe even there is no similar previous research, so it is appropriate for researchers to be tested on SPM, especially SPK in improving loan performance (credit).

1.1 Objectives
This study aims to analyze the performance measurement system and business loans' performance at BPR BKK in Central Java. The research object is the internal control employee (SPI) as an auditor.

2. Literature Review
2.1 Regional company Credit Agency (PD. BKK)
BKK was founded by the Provincial Government of Central Java in 1970 at first as a project associated with the village modernization program. BKK's initial activities were only channeling funds from capital obtained from mandatory customer savings. In subsequent developments, it was an activity in the economic sector, especially in banking. Based on the Decree of the Governor of the Central Java Region No. Dsa G 226/1969 dated 4 September 1969 and No Dsa G 313/1970 dated 19 November 1970. The Credit Agency is a financial institution that only carries out conventional business activities. BKK accepts deposits only in the form of time deposits, savings or other equivalent forms. In contrast to commercial banks, BKK cannot provide services in payment traffic. The form of BKK legal entity based on ownership, namely: Regional Company because the Regional Government owns all capital.

Development of Rural Banks

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The number of BPRs has continued to decline over the past seven years in line with the merger and consolidation policies of BPRs that have been promoted in the context of strengthening capital and operational efficiency. The number of BPRs in 2006 was recorded as 1,880 BPRs, reduced to 1,635 at the end of 2013. However, the number of BPR offices has continued to increase from 3,173 offices in 2006 to 4,678 offices at the end of 2013. It shows the commitment of BPRs to meet the needs of bank services to the small community it is always carried out. The increase in the contribution of BPRs to banking services is also evident from the development in the amount of fund collection and distribution of funds to customers and the volume of business that has continued to increase for 7 years.

Financing (Credit Risk Principles)
Financing is one of the main duties of a bank, namely providing funding facilities to meet the needs of parties who are deficit units (Antonio, 2001). Credit risk is the debtor's potential failure to meet obligations to the bank as agreed. The purpose of risk management is to maximize the return on bank financing by maintaining credit risk exposure within acceptable (size limits acceptable). Then, bank expertise is needed in managing their financing portfolios and credit risk management (Z. Dunil, 2006).

Attitude Towards Risk
Attitude to risk means the organization's willingness to accept risk (William and Narendra, 1999). The bank's low-risk attitude causes the bank not to dare to accept profitable projects (Fletcher, 1995). It can lead to low financing at the bank (Lewis and Algaoud, 2001). A low attitude towards risk can lead to low financing because of high-risk financing. Attitude to risk must be under the supervision and attention of bank management. Regular monitoring of the credit disbursement and repayment processes is a high risk.

Organizational Learning Organizational
Learning is a process of continuous experience seeking and changing the experience gained into knowledge that is ready to be used for all parts of the organization and can support the organization's mission (Senge, 1990). Some literature states that banks' limited ability to select and assess the feasibility of projects and entrepreneurs (Ahmed, 2003) and the lack of banks' ability to supervise given financing (Errico and Farah Baksh, 1998) are thought to affect financing performance. Gafoor (2003) states that BPR financing is not carried out because the bank lacks expertise and experience and lacks capital in financing.

Use of the Performance Measurement System
The performance measurement system (DSS) used in this study uses the concept of the DSS developed by Simons (1995), namely the use of DSS diagnostically and interactively. DSS diagnostically reports information about important factors that affect performance and encourages managers to focus on these important factors. The use of diagnostic DSS has three characters, namely: 1) the ability to measure the results of activities; 2) the existence of a predetermined standard that allows comparison of results and standards; 3) there is the possibility to carry out a process of improvement if the achievement of results is not following standards (Iwaarden, 2006). The use of interactive DSS focuses more on what happens in the future and is characterized by active and frequent discussions among managers. The use of interactive DSS focuses on the process of encouraging new ideas and strategies. With an interactive system, the control system can function in discussing, learning, and forming new ideas (Burchell et al., 1980).

Previous Research
Hidayati (2010) conducted research using a performance measurement system and the performance of financing for Islamic banking results. Respondents were sent a questionnaire to 256 branches of Islamic banks in Indonesia. Of all the questionnaires returned, only 99 questionnaires can be used as a basis for analysis (data can be processed). This research focuses on the effectiveness of production sharing contracts that are expected to contribute to Islamic banking's successful performance in Indonesia. The result is that attitudes to risk and organizational learning can explain the relationship between MSS and revenue-sharing performance. Kuncoro (2011) researched the evaluation of the internal control system for providing credit to PD. BKK Mojosongo Boyolali. The research objective is whether the credit granting internal control system is adequate and know the credit granting internal control system's strengths and weaknesses. This research uses interview and observation methods. The type of data used is primary data. The result of this research is that the internal control system for providing credit has advantages and disadvantages. In general, the internal control system for granting credit to PD. BKK Mojosongo Boyolali is good. Marliana (2014) researched the relationship between performance measurement systems and attitudes towards risk and Islamic banking financing performance. The research objective was to determine the relationship between using a diagnostic
performance measurement system and using an interactive performance measurement system with attitudes towards risk and the quantity and quality of the financing process in Islamic banking. This research is quantitative research with a survey method that involves statistical analysis with primary data. This study indicates that the use of a performance measurement system is diagnostically related to the willingness of Islamic banking to accept risks.

The hypothesis

A Balanced Scorecard is part of the performance appraisal, which is an attribute of agency theory. Agency theory is the supervision and examination of the company's operational activities. This evaluation is carried out as a whole by the entity's owner to operations in terms of financial and human resources. Performance of human resources can be measured. This study links the performance measurement system, which is part of the Balanced Scorecard, with loan performance. Based on the description above, the following hypothesis can be drawn:

Hypothesis 1: There is a significant relationship between performance measurement systems and loan performance (credit).

A good Management Control System (SPM) generally involves principals and agents in preparing, implementing, monitoring, and decision-making in problem-solving. One form of SPM in business is an Internal Control Unit (internal audit), Risk Management, an Audit Committee on the Board of Commissioners, and monthly evaluations by principal agents. Thus, as an instrument of the Balanced Scorecard, the management measurement system can be linked to loan performance (credit). Based on the description above, the following hypothesis can be drawn:

Hypothesis 2: There is a significant relationship between management measurement systems and loan performance (credit).

This study estimates that organizational learning will have a positive effect on financing (loans). To financing performance, several factors can be improved through organizational learning. Some of these factors include the ability of banks to assess project feasibility, increase their ability to carry out supervisory activities, increase the understanding of bank employees and managers of the bank's objectives, and accelerate changes in the vision of bank managers from a debt-based banking system to a banking system. Based on the description above, the following hypothesis can be formulated:

Hypothesis 3: There is a significant relationship between organizational learning and loan performance (credit).

Attitudes towards risk must be under the supervision and attention of bank management. Regular monitoring of the credit disbursement and repayment processes is a high risk. Thus it can be estimated that there is a relationship between attitudes towards risk and the financing quantity. Based on the description above, the fourth hypothesis can be formulated as follows:

Hypothesis 4: There is a significant relationship between employee attitudes and loan performance (credit).

3. Methods

3.1 Data Sources and Design of Instruments

The types of data used in this study are primary data. Primary data is a type of data in the form of choices, attitudes, experiences, or characteristics of a person or group of people subject to research using a questionnaire (Indriantoro and Supomo, 2002). Primary data comes from answers to questionnaires returned by respondents. The returned questionnaire will be selected first to see whether it is complete or not filled in as desired for analysis purposes.

3.2 Population and Sample

A population is a group of people, events, or everything with certain characteristics (Indriantoro and Supomo, 2009). The population of this research is the auditors who work at the PD.BPR.BKK office in Central Java. It is because the researchers reside and work in the Pekalongan district. Besides, the growth of Pekalongan Regency PD. BPR. BKK is growing rapidly. The samples were determined based on convenience (convenience sampling). The latest data on the number of employees, both at the junior, senior, and manager levels, cannot be known with certainty, considering the adequacy of the data needed for analysis using the analysis model.

4. Data Collection

The primary data collection technique is done by using a method, a survey, namely a questionnaire. The data collection technique used a questionnaire, namely by delivering it directly to the head office and BPR.BKK branches. Each
BPR.BKK was given a questionnaire based on the number of permanent employees according to these criteria. The time for collecting is 2 (two) weeks from when the respondent received the questionnaire.

In this study, hypothesis testing was carried out using the Partial Least Square (PLS) method is an alternative analysis method of analysis with Structural Equation Modeling (SEM), based on variance. The analytical tool used in this study using the SmartPLS Version 1.0 program. The outer model specifies the relationship between latent variables and their indicators, or it can be said that the outer model defines how each indicator relates to its latent variables. Testing the outer model in this study uses the convergent test validity and composite reliability. The inner model describes the relationship between the latent variables in the research model. The structural model was evaluated using the $R$-square for the dependent construct and $t$-test and the significance of the structural path parameter coefficients. In assessing the PLS model, it starts by looking at the $R$-square for each latent dependent variable. The interpretation is the same as the interpretation in regression. Changes in the $R$-square value can assess the effect of certain independent latent variables on the latent dependent variable whether it has a substantive effect (Ghazali, 2011).

5. Results and Discussion
5.1 Numerical Results
Respondents in this study are auditors who work at PD.BPR.BKK offices in Central Java. This study used a questionnaire instrument that was distributed to 250 respondents. Of the 250 questionnaires distributed, 110 questionnaires were returned and filled in completely.

5.2 Proposed Improvements
Convergence Validity
Testing of convergence validity is done by looking at the value of average variance extracted (AVE) for each construct. The result of convergence validity as seen in Table 1 below:

<table>
<thead>
<tr>
<th>Variable(s)</th>
<th>The average variance extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERFORMANCE</td>
<td>0.517</td>
</tr>
<tr>
<td>SPK</td>
<td>0.483</td>
</tr>
<tr>
<td>SPM</td>
<td>0.723</td>
</tr>
<tr>
<td>PO</td>
<td>0.653</td>
</tr>
<tr>
<td>ATTITUDE</td>
<td>0.697</td>
</tr>
</tbody>
</table>

It shows that the average variance extracted (AVE) value for each construct is $> 0.5$. Thus, it can be concluded that the model in this study has good discriminant validity.

5.3 Composite Reliability
Composite reliability tests the reliability value between the indicator blocks of the constructs that form it. The results of the output composite reliability can be seen in Table 2 below:

<table>
<thead>
<tr>
<th>Variable(s)</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERFORMANCE</td>
<td>0.894</td>
</tr>
<tr>
<td>SPK</td>
<td>0.845</td>
</tr>
<tr>
<td>SPM</td>
<td>0.912</td>
</tr>
<tr>
<td>PO</td>
<td>0.883</td>
</tr>
<tr>
<td>ATTITUDE</td>
<td>0.821</td>
</tr>
</tbody>
</table>

Table 2 shows the composite value reliability for the loan performance acceptance variable is 0.894, for the performance measurement system variable, it is 0.845, for the management control system variable, it is known as 0.912, for the organizational learning variable, it is known as 0.883, and the composite value reliability for employee attitude variables is known to be 0.821. These results indicate that all variables have value composite reliability $> 0.70$. Thus, the model in this study has met composite reliability.
5.4 Inner Model

Furthermore, the structural model is tested (inner model). The results of the structural model test (inner model) can be seen in the Table 3:

<table>
<thead>
<tr>
<th>Variable(s)</th>
<th>R-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERFORMANCE</td>
<td></td>
</tr>
<tr>
<td>SPK</td>
<td>0.554</td>
</tr>
<tr>
<td>SPM</td>
<td>0.433</td>
</tr>
<tr>
<td>PO</td>
<td>0.406</td>
</tr>
<tr>
<td>ATTITUDE</td>
<td>0.710</td>
</tr>
</tbody>
</table>

Table 3 shows the results of R-square value for the performance measurement system variable is 0.554. Its means that the loan performance's ability in explaining the performance measurement system variables is 55.4%. Meanwhile, the R-square value for the management control system variable is 0.433. Its means that the loan performance's ability in explaining the management control system variables is 43.3%. The R-square value for the organizational learning variable is 0.406. Its means that the ability of the loan performance in explaining organizational learning variables is 40.63%. Moreover, the R-square value for the employee attitude variable is 0.710. Its means that the ability of loan performance in explaining employee attitude variables is 71%.

5.5 Hypothesis Testing

The hypotheses testing and relationships between variables can be seen from the Inner Weight on the model, the following is the result of coefficients path in inner the model, as seen in Table 4:

<table>
<thead>
<tr>
<th>Original sample estimate</th>
<th>mean of subsamples</th>
<th>Standard deviation</th>
<th>T-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERFORMANCE -&gt; SPK</td>
<td>0.745</td>
<td>0.746</td>
<td>0.059</td>
</tr>
<tr>
<td>PERFORMANCE -&gt; SPM</td>
<td>0.658</td>
<td>0.669</td>
<td>0.055</td>
</tr>
<tr>
<td>PERFORMANCE -&gt; PO</td>
<td>0.637</td>
<td>0.669</td>
<td>0.081</td>
</tr>
<tr>
<td>PERFORMANCE -&gt; ATTITUDE</td>
<td>0.843</td>
<td>0.849</td>
<td>0.026</td>
</tr>
</tbody>
</table>

Table 4 reports the results of hypotheses testing (Inner Weight). H1: The estimation results of weight inner on the effects loan performance against the performance measurement system, the value of t-statistics at 12.684. Therefore, the value of t-statistics> 1.96 for a two-way test, the level of 5%. Thus, it can be said that loan performance has a significant effect on the performance measurement system. The first hypothesis states that "there is a significant relationship between the performance measurement system and loan performance", it is acceptable.

H2: The estimation results of inner weight on the effect of loan performance on the management control system, the t-statistics value is 12.050. Therefore, the value of t-statistics> 1.96 for a two-way test, the level of 5%. Thus, it can be said that loan performance has a significant effect on the management control system. The second hypothesis states that "there is a significant relationship between the management control system and loan performance", it is acceptable.

H3: The estimation results of inner weight on the effect of loan performance on organizational learning, the t-statistics value is 7.868. Therefore, the value of t-statistics> 1.96 for a two-way test, the level of 5%. Thus, it can be said that loan performance has a significant effect on organizational learning. The third hypothesis states that "there is a significant relationship between organizational learning and loan performance", it is acceptable.

H4: The estimation results of inner weight on the effect of loan performance on employee attitudes, the t-statistics value is 32.708. Therefore, the value of t-statistics> 1.96 for a two-way test, the level of 5%. Thus, it can be said that loan performance has a significant effect on employee attitudes. The fourth hypothesis states that "there is a significant relationship between employee attitudes and loan performance", acceptable. Figure 1 shows the PLS output by applying the smartPLS software and Figure 2 displays the hypotheses testing diagram.
6. Conclusion

In conclusion, the loan performance significantly affects the performance measurement system. Loan performance has a significant effect on management control. Loan performance has a significant effect on organisational learning.
Loan performance has a significant effect on employee attitudes. Suggestions that can be conveyed after conducting this research are improve organizational learning for employees, especially marketing staff who are classified as for beginners. This increase can be manifested in an increase in self-confidence in completing tasks to audit the company and increasing knowledge through courses or education related to marketing. This increase in organizational learning will have an impact on improving loan performance. This increase in performance also has an impact on employee pressure to want to leave the company. Prevent the emergence of role ambiguities that arise when employees carry out their duties. It can be done by providing opportunities to work with the team while carrying out their duties and For future researchers, it is hoped that the population and sample area will be expanded within the country's territory. It can be information on the general behavior of employees in a country regarding quality and professionalism.

References

Kees van der Heijden, Bradfield, R. Burt, G., Cairns, G. dan Wright, G. *Sixth Sense: Accelerating Organizational Learning with Scenarios*. Chichester: Wiley. 2002


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