



## Relationship Balanced Scorecard and COSO 2013 Risk Management to Improve Performance: A Case Study on BPR Chandra Mukti Artha Bank

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### **Abstract**

In the 21st century companies, especially in financial institutions (banks) face a complex business environment, full of opportunities, but pitted with risks, where they must make effective business decisions, improve interpersonal relationships, fulfill community obligations with the right strategy and managing risk. To overcome these challenges, companies need management tools that can help companies achieve their goals. In a very simple application, BPR Chandra Mukti Artha applies the Balanced Scorecard (BSC) and COSO Enterprise Risk Management (ERM) framework as a tool to link strategic objectives into the COSO ERM framework. They link high-level corporate strategies determined by top-level management with the daily activities of employees in the organization. Surprisingly, most companies view BSC and COSO ERM as separate and unrelated management initiatives. In this research, I study the feasibility of linking BSC with COSO ERM 2013, a framework for sophisticated risk management, similar to how BSC can be integrated with various business management frameworks and methods. The integration of these two management tools (BSC and COSO ERM Framework) is a natural step in the evolution of bank management to improve bank financial performance.

**Keywords:** *Balanced Scorecard; COSO Enterprise Risk Management Framework; Strategic Management System; Risk Management; Financial Performance*

### **Introduction**

Enterprise risk management is a strategy used to evaluate and manage all company risks. This is basically a series to minimize the level of risk to an acceptable level. Therefore, enterprise risk management has an important role because it is a process of identification, measurement and financial control of a risk from an activity that can cause damage or loss to the company (Dito and Etna 2012). The right decision making process and the ERM process that runs well cannot be separated from how a company efficiently controls risk. Measurement of whether or not a company is achieving its goals one of the most well-known is the Balanced Scorecard (BSC). Risk can be analyzed to have an impact on the bank's strategic goals so that the bank can understand the strategic objectives and what risks need to be controlled and mitigated.

In the existing risk control process, BPR Chandra Mukti Artha has implemented risk control because in the last 2 years the OJK as the financial supervisor requires all financial institutions to implement a risk management system in order to minimize the possibility of risks to banks. Nevertheless BPRs still apply conventional risk control systems due to the lack of competent human resources in their fields. In addition, the approach in determining the measurement of BPR performance is still conventional.

In implementing an optimal risk control system, managers must consider many things about the risk control system in this case the researcher uses the Balanced Scorecard as a tool to set BPR strategy targets associated with the 2013 ERM COSO as a risk measurement tool to improve financial performance at BPR banks Chandra Mukti Artha .

### ***Theoretical Review***

#### ***Model B Advanced Scorecard (BSC)***

The Balanced Scorecard (BSC) is used as a measurement of the performance of BPR Candra Muktiarta Bank. This BSC will be linked to ERM whose risks will affect the strategic objectives from the four perspectives used. This BSC will be used as a measurement of company performance that determines whether the company's strategic objectives are achieved or not. BSC has four perspectives namely finance, customers, internal business processes, and learning and growth. Each of its perspectives will consist of strategic objectives, performance measurements, targets and planned activities. Strategic goals are what the company wants to achieve, performance measurement is how the company evaluates the strategy, targets are the minimum limits to be achieved, and activity plans are how to make the strategy goals successful.

#### ***The Concept of ERM (Enterprise Risk Management)***

According to Sobel and Reding (2004) ERM is a structured and disciplined approach to help management understand and manage uncertainty and cover all business risks using an integrated and holistic approach. A report from the Institute of Internal Auditors (IIA) captures the essence of ERM as "The purpose of ERM is to create, protect, increase shareholder value by managing the uncertainties that surround the achievement of organizational goals" (Sobel and Reding, 2004).

D'Arcy and Brogan (2001) state that in accordance with the Casualty Actuarial Society (CAS), ERM is defined as the process by which organizations in all industries assess, control, exploit, finance and monitor risks from all sources for the purpose of increasing the short-term and long-term value of stakeholders organizational interests.

#### ***COSO ERM (Enterprise Risk Management) Model***

COSO *Enterprise Risk Management* is a framework to help companies to have a consistent definition of their risks. It is also an important tool for understanding and improving internal control. COSO ERM was launched in the same way as the development of the COSO Internal Control Framework. Just as there is no consistent definition of internal control, there is also no consistent definition at the company level of risk.



Figure 1. Coso Table

Source: The 2013 COSO Framework & SOX Compliance, McNally, 2013

The picture above shows the COSO ERM Framework through a three-dimensional cube object with components:

- The vertical four columns on the roof of the cube represent the company's strategic risk objectives.
- Eight horizontal lines are a component of risk.
- Multiple levels to describe each company, from the level of the "headquarters" to their respective subsidiaries. Depending on the size of the organization, there will be many slices of the model here. The following is an explanation of the risk components of the COSO ERM Framework.

### ***Financial Performance***

According to Sucipto (2003), the notion of financial performance is the determination of certain measures that can measure the success of an organization or company in generating profits. Meanwhile according to IAI (2007), it was stated that financial performance is the company's ability to manage and control its resources. Understanding the financial performance of a company shows a fairly close relationship with an assessment of the health or unhealthiness of a company. So that if the performance is good, then the health level of the company is good too.

### ***Methodology***

This research uses a qualitative approach strategy. Qualitative research is carried out research on research that is descriptive and tends to use analysis. The process and meaning (subject perspective) is more highlighted in qualitative research. The theoretical foundation is used as a guide so that the focus of research is in accordance with the facts in the field. Besides this theoretical foundation is also useful to provide a general description of the research background and as a material discussion of research results. This research was conducted at Bank BPR Chandra Muktiartha Yogyakarta.

### ***Data Collection***

The method used for data collection is to use primary data and secondary data through:

- a. Interview or discussion with BPR's financial manager and director Chandra Muktiarta to discuss the preparation of likelihood, level of risk, and risk appetite.
- b. Documentation from company records such as profile books, proposals, websites, and documents covering the history of its establishment, vision-mission, organizational structure and business processes.
- c. Open or closed questionnaire to determine SWOT, BSC, risk identification, risk analysis, evaluation and risk treatment.

## ***Results and Discussion***

### ***Balanced Scorecard (BSC)***

The Balanced Scorecard (BSC) of BPR Candra Muktiarta Bank can be seen in Table 1. The BSC results refer to Appendix 2 of the Balanced Scorecard Questionnaire completed by the Risk Manager of BPR Bank Candra Muktiarta.

### ***COSO Based Risk Management Assessment***

#### ***1. Risk Identification***

Risk identification is carried out to find, recognize, describe, and describe risks. This process involves identifying the source of risk, its causes and potential impacts. In its business process, BPR banks have implemented a risk management system in accordance with OJK regulations which require all financial institutions (banks) to have a risk control system, but in fact the BPR bank Chandra Muktiarta still has difficulty in implementing risk management controls because the system owned is not systemized with good, and the human resources they have do not fully understand the jobs and responsibilities that should be carried out. The process of identifying risks at BPR Chandra Muktiarta to see whether the targets at BPR banks have been achieved and know what targets have not been achieved at the bank. This is reflected in the BSC and COSO, from the results of the interviews resulting in 72 risks in BPRs that caused the strategic targets not to be achieved then in the research questionnaire classified as taking 34 risks in the tables that have been elaborated from events, causes to impacts. The risks that have been identified include all types of risks that will be analyzed in the next process, namely the risk analysis process.

**Table 1. Balanced Scorecard of BPR Bank Candra Muktiarta**

| Perspective                 | Code | Strategic Objectives                      | Performance Measurement   | Target | Activity plan   |
|-----------------------------|------|---|---|--------|---|
| Finance                     | K1   | NPL                                       | <i>Bad credit</i>   | 5%     | Achievement of profitability ratios according to health level indicators and healthy predicate  |
|                             | K2   | <i>Growth</i>                             | <i>Revenues growth</i>  | 10%    | Achieve sales targets , work <i>progress</i> in accordance with the target.   |
|                             | K3   | Stability finance                         | <i>Debt ratio</i> (total debt / total assets)   | 40%    | Manage <i>cash flow</i>   |
| Customer                    | Q1   | Customer Satisfaction                     | <i>Percentage of repeat customers</i>   | 70 %   | Complete the job well, maintain good communication and relationships with customers.  |
|                             | P2   | Quality of service (service) and work     | <i>Rework factor (total direct cost of field rework / actual construction phase cost)</i> | 3%     | Providing excellent service to customers.   |
|                             | Q3   | The number of new customers has increased | Number of new customers per year  | 10%    | Doing product innovation and creating interesting events or sponsoring.   |
| Internal Business Processes | I1   | Conducive business environment.           | <i>Time effectiveness</i> (customer satisfaction increases every year)                    | 3%     | Implement a service system that is in accordance with predetermined time limits.  |
|                             | I2   | Business efficiency                       | <i>Efficiency ratio</i> (total cost / total sales)  | 85%    | Manage resources (employees, heavy equipment, and assets other) effectively and efficiently.  |
|                             | I3   | Achievement not targeted                  | <i>Successful targeting rate per year</i>   | 45%    | Build more competent HR, create product innovation, provide competitive interest rates, and provide rewards for employees who meet targets. |
| Learning and Growth         | PP1  | Creating a conducive work environment     | Average employee tenure (in years)  | 5      | <i>Work-life</i> integration program  |
|                             | PP2  | Employee satisfaction                     | <i>Turn over rate</i>   | 10%    | The return that is commensurate with the employee's performance , a conducive work environment  |
|                             | PP3  | <i>Manager Certification</i>              | Number of <i>managers</i> have a Certificate of Expertise in Personnel Expert             | 100%   | Involve all <i>managers</i> in the certification program.   |

## 2. Risk Assessment

### a. Risk Analysis

**Table 2. BPR Credit Risk Chandra Mukti Artha**

| Risk type   | Number of Events | Not Urgent (Within Tolerance Limits) | Urge (Above Risk Appetite) BSC perspective | Perspective and Target |
|-------------|------------------|--------------------------------------|--|------------------------|
| Credit Risk | K28              | To urge                              | -  | Finance                |
|             | K29              | To urge                              | -  | Finance                |
|             | K34              | To urge                              | -  | Finance                |

Source: Data Processing Results, 2020

In this study, there are three categories of risk with *highrisk* which third these risks are credit risk, namely:

In the category of BPR credit risk, the level of bad credit is still very high, this is due to the lack of a control system in monitoring the amount of credit. Credit risk arises as a result of credit activities in the banking sector. Risks that arise will cause losses to the bank because the credit given to the debtor cannot be returned in part or in full from the credit value, causing losses. BPR Chandra Mukti Artha has made efforts to reduce the risk of non-performing loans in two ways, namely by saving loans and settling loans. Credit rescue has been done but it is still not optimal due to the good condition of the debtor's business, character, and economic conditions which results in non-performing loans being saved. Similarly, in the settlement of credit, the debtor cannot pay off and the bank also has not been able to carry out the tender auction stage. This condition is an obstacle in BPR Chandra Mukti Artha, causing the amount of problem loans to increase every year. This causes credit risk with a high level of loss for BPR Chandra Mukti Artha and can disrupt bank operational performance, so it needs to be followed up by using risk management.

### b. Risk Evaluation

The risk evaluation process to compare the results of risk analysis with risk criteria is then determined whether the magnitude of the risk is acceptable or tolerated by the company. Risk evaluation helps in making decisions for risk treatment. Risk evaluation refers to the Attachment to the Risk Analysis Questionnaire and Attachment to the Phase I Evaluation and Risk Treatment Questionnaire that has been filled out by BPR Risk managers Chandra Mukti Artha. In the Risk Analysis, respondents are required to determine the control system for each risk that has been identified. This control system functions so that future risks do not recur or do not increase the level of risk. Respondents are required to determine risk priorities and risk treatment plans. Risk priority consists of urgent and non-urgent, if it is urgent, then the risk must be treated according to choice as soon as possible, if not urgent, the risk is treated if the priority risk has been done. Whereas the risk treatment plan consists of avoiding, sharing, mitigating and accepting risk. The risk evaluation process produces a control system for 58 risks as an initial measure so that the risk does not occur or recur, while 14 risks have no control system because there is no way or there is no plan for control measures. The highest priority risk is at Urgent by 37 risks, while 35 risks are not Urgent. The risk treatment plan consists of four (4) options, namely avoiding risks, sharing risks, mitigating risks, and accepting risks. The results of the risk evaluation, there are 58 risks to

be mitigated, 3 risks to be shared with other parties, 12 risks to be accepted, and avoiding risks are not there at all.

**c. Risk Mapping**

Risk mapping is the result of risk identification which shows the level of risk in the form of a risk matrix map which is the result of multiplication between likelihood and consequence. Risk mapping serves to increase corporate awareness of the risks that have been identified so that decisions can be made on a risk can be made a table describing risk mapping at BPR Chandra Muktiartha.

**Table 3. BPR Risk Mapping Chandra Muktiartha (Inherent risk)**

| MATRIX     |                             | CONSEQUENC                      |   |  |                         |                                    |
|------------|-----------------------------|---------------------------------|---|--|-------------------------|------------------------------------|
|            |                             | E                               |   |  |                         |                                    |
|            |                             | 1                               | 2   | 3  | 4                       | 5                                  |
|            |                             | <i>Insignifican</i><br><i>t</i> | <i>Minor</i>                                  | <i>Moderate</i>  | <i>Major</i>            | <i>Catastroph</i><br><i>c</i>      |
| LIKELIHOOD | 5<br>Almost certainly Occur |                                 |   |  |                         |                                    |
|            | 4<br>Often occurs           |                                 |   | K28, K29, K34  |                         |                                    |
|            | 3<br>Maybe Occur            | O1, O7, K30, K32, K33           |   | O6, O9, O19.   |                         |                                    |
|            | 2<br>Rarely Occur           | A6, A7, A8, A9                  | A1, A2, A3, A4, A5, A10, K4, K6, K8, K9, K10. | K1, K2, K3, K7, K12, K13, K16, K35, O1, O2, O3, O4, O5, O8, O17, |                         | K27, K31                           |
|            | 1<br>Almost No Occur        |                                 | K21, K22, K23, K24, K25, K26.                 | O10, O11, O12, O13, O14, O15, O16.                               | O18, O20, O21, O22, O23 | K11, K14, K15, K17, K18, K19, K20. |

Source: Data Processing, 2020

- Information:  
 K: Risk of Credit  
 O: Operational Risk  
 A: Financial Risk

**Table 4. Risk Mapping of PT. BPR Chandra Muktiartha (Residual Risk)**

| MATRIX            |                                 | CONSEQUENCE          |                                     |  |                      |                                   |
|-------------------|---------------------------------|----------------------|-------------------------------------|--|----------------------|-----------------------------------|
|                   |                                 | 1                    | 2                                   | 3  | 4                    | 5                                 |
|                   |                                 | <i>Insignificant</i> | <i>Minor</i>                        | <i>Moderate</i>                                    | <i>Major</i>         | <i>Catastrophic</i>               |
| <b>LIKELIHOOD</b> | 5 <b>Almost certainly Occur</b> |                      |                                     |  |                      |                                   |
|                   | 4 <b>Often occurs</b>           |                      |                                     |  |                      |                                   |
|                   | 3 <b>Maybe Occur</b>            | K28,K29,K30,K32,K33  |                                     |  |                      |                                   |
|                   | 2 <b>Rarely Occur</b>           | A6,A7,A8,A9          | A1,A2,A3,A4,A5,A10,K4,K6,K8,K9,K10. | K1,K2,K3,K7,K12,K13,K16,K35,O1,O2,O3,O4,O5,O8,O17. |                      |                                   |
|                   | 1 <b>Almost No Occur</b>        |                      | K21,K22,K23,K24,K25,K26,O6,O19      | O10,O11,O12,O13,O14,O15,O16.                       | O18,O20,O21,O22,O23. | O18,O20,O21,O22,O23,O1,K34,O7, O9 |

Source: Data Processing 2019

Information:  
 K: Risk of Credit  
 O: Operational Risk  
 A: Financial Risk.

**3. Risk Response**

The implementation of the Risk control process is used by rural banks to manage risks that could endanger the business continuity of rural banks. Analysis of Troubled Credit Handling Efforts at BPR Chandra Mukti Artha:

**a. Rescheduling**

This is done by adding credit amounts or adding capital to the debtor's business but with the following conditions:

- 1) Debtor business still exists and still has good prospects going forward.
- 2) Debtor has a good faith in paying their obligations to the Bank.

**b. Reconditioning**

- 1) Decrease interest rates based on ability to pay and can be given the lowest interest rate on the previous credit amount.
- 2) Reduction of interest arrears / payment of credit interest penalties or penalties, given to debtors who still have interest arrears before the credit is restructured. The amount of reduction in arrears can be given a maximum of the existing interest arrears but must still take into account the minimum risk of loss for BPR Chandra Mukti Artha.



### **c. Restructuring**

Relief to debtors provided by BPR Chandra Mukti Artha who made payment arrears, namely by extending the term of the debtor credit payments (restructuring). The relief was provided by the bank on the condition of prior agreement and negotiation between the debtor and the bank and witnessed by a notary.

### **d. Combination**

Namely the bank provides a step to rescue problem loans to debtors by combining reconditioning with restructuring, or restructuring with reconditioning.

### **e. Settlement of Problem Loans**

- 1) Peacefully, that is, the debtor immediately repays the principal of the loan because the debtor is unable to pay the interest charged.
- 2) Through legal channels, i.e. the bank has the right to auction the collateral provided by the debtor when applying for credit.
- 3) Banks cooperate with insurance companies with the aim of making it easier for banks to handle problem loans because all costs and collateral value have been calculated by the insurance company so as to minimize losses suffered by the bank.

### **Conclusion**

The relationship between *enterprise risk management* (ERM) and the *balanced scorecard* (BSC) is feasible in the BPR Chandra Mukti Artha. With a BSC integrated with ERM, established bank goals / objectives that are reflected in 4 BSC perspectives, the strategic goals will be more focused on achieving outcomes (ie in the form of system improvements in the BPR management system). The four *balanced scorecard* perspectives in addition to providing a more comprehensive view of strategic planning, also provides a more comprehensive and comprehensive view of the possible risks arising from BPR operational activities and the possible risk management so that the objectives / targets of BPR can be achieved.

### **Suggestion**

1. For further research in order to add scope to data collection, broaden the types of risk, and create a more complete reporting system in the risk management system.
2. For company policy, create a separate division to handle risk management, create risk management policies from *top management*, and create an integrated organizational structure to carry out risk management.
3. The decline in the value of inherent risk into residual risk is influenced by a number of internal and external factors, namely in terms of economic, social and political aspects.

## References

- Aebi, G. Sabato, and M. Schmid, "Risk management, corporate governance, and bank performance in the financial crisis," *Journal of Banking & Finance*, vol. 36, pp. 32133226, 2012.
- Banker, H. Chang, and M. J. Pizzini, "The Balanced Scorecard: Judgmental effects of performance measures linked to strategy," *The Accounting Review*, vol. 79, pp. 1-23, 2004.
- Bauer, W., and M. Ryser. 2002. *Risk Management Strategies for Bank*. *Journal of Banking and Finance*. vol. 28 no. 4, pp. 331-352.
- Beasley, A. Chen, K. Nunez, and L. Wright, "Working hand in hand: Balanced scorecards and enterprise risk management," *Strategic Finance*, vol. 87, pp. 49-55, 2006.
- Beasley, Mark, Clune, R, dan Hermanson, D. R. (2005). "Enterprise Risk Management: An Empirical Analysis of Factor Associated with the Extend of Implementation". *Journal of Accounting and Public Policy*, 24.
- COSO (The Committee of Sponsoring Organizations). (2004). *Applying COSO's ERM – Integrated Framework*. [www.coso.org](http://www.coso.org).
- Ernst & Young. (2009). *A New Balanced Scorecard. Measuring Performance and Risk*.
- Heitger, Dan L., and Ballou Brian. (2006). *Integrating The Balanced Scorecard and Enterprise Risk Management*. *ABI/Inform Research*.
- Hoyt and A. P. Liebenberg, "The Value of Enterprise Risk Management," *The Journal of Risk and Insurance*, vol. 78, pp. 795-822, 2011.
- Idroes, F. N. 2008. *Manajemen Risiko Perbankan: Pemahaman Pendekatan 3 Pilar Kesepakatan Basel II Terkait Aplikasi Regulasi dan Pelaksanaannya di Indonesia*, PT Raja Grafindo Perkasa, Jakarta.
- Irwan Lubis. "Integrating Balanced Scorecard and Enterprise Risk Management in Banking".
- Ita Mariza. "Pengukuran Kinerja Dengan Balanced Scorecard," *Journal The WINNERS*, Vol. 4 No. 2, September 2003: 127-13.
- Kaplan and D. P. Norton, "The Balanced Scorecard-measures that drive performance," *Harvard Business Review*, vol. 70, pp. 71-79, 1992.
- Kaplan, Robert S., and Norton, David P. (2001). *The Strategy Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment*. *Harvard Business Scholl Press*.
- Kaplan, Roberts., and Norton, David P. (2004). *Strategy Maps: Converting Intangible Assets Into Tangible Outcomes*. *Harvard Business School Press*.
- Kaplan, Robert S., and Norton, David P. (2001). *The Strategy Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment*. *Harvard Business Scholl Press*.
- Killackey, Henry. 2008. *The Balanced Approach to Managing Risk- Integrating the Balanced Scorecard with Enterprise Risk Management*. [www.information-management.com](http://www.information-management.com).

Kurniawati, SE,M.Ak “Integrasi *Balanced Scorecard* Dengan *Coso Enterprise Risk Management Framework*” *Jurnal Akuntansi Bisnis Vol.4 No.2*.

Nagumo, Takehiko., and Donlon, Barnaby S. (2006). *Integrating The Balanced Scorecard and COSO ERM Frameworks*. *ABI/Inform Research*.

Nocco and R. M. Stulz, "Enterprise risk management: theory and practice," *Journal of Applied Corporate Finance* vol. 18, pp. 8-20, 2006.

Shenkir, William G. (2006). *Enterprise Risk Management and The Strategy Risk Focused Organization*. *ABI/Inform Research*.

Wijihastuti, Ratna. (2009). *Integrasi Enterprise Risk Management (ERM) dengan Balanced Scorecard (BSC): Penerapan Pada Organisasi Pemerintah Daerah*. *Buletin Perwakilan BPKP Provinsi D.I Yogyakarta*.

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