

RISKY BUSINESS: A Study of Risk Management and Its Effects on Pension Fund

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Abstract

Pension Fund, as a legal entity that manages the property and run a pension plan that maintains the sustainability of the pension benefit income for the participants in the after-work period, is particularly vulnerable to risk. In the context of pension fund management, the risks that are faced are the insufficient funds that may influence the fulfillment of the obligation of the Pension fund in giving the pension benefits to its clients. Implementing some of the techniques / management accounting practices in the Pension Fund, Pension Fund Board can assist the risk management to improve the performance of organizations in Pension Fund. This study aimed to examine the effect of management accounting on the implementation of risk management and its implications of organizational performance. This study measures the extent of management accounting practices in risk management and how big the integration of them in helping to carry out the essential managerial functions to improve organizational performance. The results showed that: (1) Management accounting significantly affects the risk management of the employer Pension Fund that hold Defined Benefit Pension Plan (Program Pensiun Manfaat Pasti (PPMP)) in West Java-Banten, and (2) risk management significantly affects the organization's performance in the Employer Pension Fund that hold Defined Benefit Pension Plan in West Java-Banten. This research was conducted in Pension Fund Defined Benefit Pension Plan in West Java-Banten, so the results cannot be generalized to the other contexts. The result of this research reinforces the importance of management accounting and risk management in a complementary relationship to improve organizational performance. This study contributes to the literature reviews that only few of them testing the significant relationship between management accounting and risk management.

Keywords: Management Accounting, Risk Management, Organizational Performance, Pension Fund.

1. Introduction

The Pension Funds Act 11 ,1992 implies that the existence of the Pension Fund is to ensure the continuity of income for workers after they are retired. Basically the law establishing the Pension Fund is not mandatory. This means that every Individual or Institution (Employer) who employs people is not required to establish a pension fund. However, if the pension fund has been formed, the founder of the obligation has to be fulfilled, especially the problem of funding in accordance with the applicable requirements (Muljadi, 2007).

Pension Fund as a legal entity that manages the property and running a pension plan to maintain the sustainability of the pension benefit income for the participants, in their retirement period, is particularly vulnerable to risks. Risks in general can be interpreted as the possibility of losses both material and immaterial that arise directly or indirectly and affect a company's finance(s) at present and in the future. In the context of pension fund management, the risk faced is the problem of insufficient funds that can interfere with the fulfillment of the pension fund obligation to pay clients receiving pension benefits (Santoso, 2011).

One of the risks associated with the management of the Pension Funds is investment risk. Investment is the most important activity of Pension fund management. Developing funds and fulfilling adequate funds are part of the management process. Investment risks may occur due to market risk, which is the risk that arises as the implication of movement in market variables of investment portfolios owned by pension funds that will decrease, measured as Difference on Assessment of Investment and Return on Investment (ROI). The definition of market variables include interest rates, exchange rates and market prices. Considering that every investment has risks, business manage risks by developing plans to avoid the unwanted risk, known as risk management (AKAI, 2008).

Risk management can be interpreted as a set of procedures and methodologies used to identify, measure, monitor and control risks that arise from the business activity. One objective of risk management is to improve the organization's performance (ADPI, 2003). In the context of wealth management or the administration of the Pension Fund, the performance can be measured from the level of Return on Investment, Return on Assets, Operating Cost ratio, Funding Ratio, Complexity of Investment Instruments portfolio and Compliance (ADPI, 2006).

The DPPK PPMP is invested in alternative investments that allowed the maximum amount of wealth allocated to each type of investment according to the Regulations of the Minister of Finance and DPPK PPMP

Investment Referral. The results of the Pension Fund investment property that adds the value of DPPK PPMP fund after deducted from investment and operating costs, becomes the funding source for DPPK PPMP to meet the obligations of fulfilling the pension benefits of pension clients or the party entitled to receive pension benefits. The increased investment can essentially improve the financial performance of the pension fund; one of the indicators of improved performance is Return on Investment (Pension Fund Bureau, 2011).

In 2010 it was known that the ROI as the indicator of financial performance on DPPK PPMP pension fund decreased compared to the previous year. It was caused by the decrease of the rate of return on investments in some investment instruments (Pension Fund Bureau, 2011). The decrease in the level of investment that can adversely affect the financial performance of the pension fund, may be due to: 1). lack of awareness of the Pension Fund Board in managing risk, 2). An improper implementation of risk management and 3) the lack of implementation of the good pension fund governance guidelines (Suharsono, 2010).

This is consistent with study results of Jafari M, et al. (2011) that stated there is a positive and significant relationship between risk management and an organization's performance. It can be said that if risk management is conducted properly, the performance of the company is expected to improve. A company's performance can be measured by financial performance and non-financial performance. Furthermore, other researchers stated that the company's competitive level is a mediator in the effectiveness of risk management to improve company performance (Nachailit, I et al., 2011).

From the observations conducted by researchers on several existing DPPK PPMP in Bandung, it appears that there was a decline in investment performance, especially stock instrument as measured by ROI in 2011. In general, the decrease in ROI over stock investment instruments is due to the market risks and the decreasing of Assessment of Investment difference. For example, the "A" DPPK PPMP with a net worth over 1 trillion, the Pension Fund has conducted an adequate risk management, but the pension fund board has to make more efforts to manage market risk, so that the investment performance will not decrease (Audited Financial Statements of the Pension Fund "A", 2011).

Based on the Audited Statement of Investment Portfolio in 2011 on the Pension Fund "A", it is known that the performance of their stock investments (SPI) decreased quite dramatically, exceeding over 100% compared to the previous year. This situation was mainly caused by the uncertain value of investment return due to the price fluctuation in the market. This contributed to the decline of ROI level they received and the quality of the Pension Fund funding was still in level two, in the other words Employers still had to pay their obligation in the form of additional fees, according to the actuarial report (Audited Portfolio Plans "A" statement, 2011).

The decrease of Investment performance due to the risk of stock market investment instruments on the Pension Fund was mitigated by the loss cutting policy, applied to the shares with value far below the market price. The investment plan was reviewed every two weeks, to anticipate the impact of the European debt crisis which was predicted to last for a longer period, therefore there will be switching the export-oriented stocks to domestic demand based stocks, calculating the timing of the stock buy and sell, making diversity of risk spread, and evaluating the risk every day by a competent expert (Audited Statements of Investment Portfolio Pension Fund "A", 2011).

The Awareness of the Board about pension fund risk management is still at a low level, because they depend on the Investment Manager. In fact, the pension fund has already done some of the risk management but, not thoroughly and not assisted by the computer-based risk management system. Pension Fund should perform better control and management (Pension Fund Bureau, 2008).

Begin with the awareness of the board and related parties concerned with the performance of the investment. Then proceed with the determination of the level of risk tolerance, identify and measure the risks including the risk dimension, the probability of the risk and value of potential loss, respond to the risk, access whether the risk will be accepted, transferred, minimized, or avoided, monitor and adjust risk. In the monitoring process, there should be a mechanism of early warning for the management staff so they can take necessary actions in order to keep the investment management on the framework of the Pension Fund Bureau, 2008).

The "B" DPPK PPMB has a net worth of over 10 trillion, it means that the Pension Fund has conducted better risk management than the Pension Fund "A". However, the Pension Fund "B" in achieving ROI until December 31, 2011 was only 8.56% of the expected ROI specified in the Work Plan Budget in 2011 which was 13.46%. This was due to a large decrease of SPI stocks and mutual funds in the Indonesia Stock Exchange (Audited Statement of Investment Portfolio, 2011).

It can be concluded that the risk that they had to face was the investment risk due to market risk. They mitigated the risk by carrying out the "wait and see" strategy. If there was a catalyst which fundamentally affected valuations and the impact of negative sentiment could be predicted, then they conducted an active strategy in investing stocks that they managed by themselves (Self-management). Then the risk management staff conducted a comprehensive risk management process (Portofolio Investment Reports Audited 2011).

But the Pension Fund's risk measurement has not assessed the risks by multiplying the probability columns and impact as a risk measurement in general. As we know that the management of the Pension Fund

by self management is (37.23%) and was handed over the Fund Manager (62.76%) (Audited Statement of Investment Portfolio, 2011).

The management by the Fund manager obtained larger investment than Self-management. To overcome the investment risks in stocks and mutual funds, it is suggested that The pension fund reduce the portion of self managed stock investment and increase the portion managed by the Fund Manager to optimize the returns, especially in the uncertain conditions of global economics , whereas fund managers conduct more professional research and make investment decisions more quickly. Furthermore, the risk assessment should determine risk value by multiplying the probability and impact columns so that the results can be used as a basis for monitoring and adjusting risk (Pension Fund Bureau, 2008).

In investing, pension fund managers face a complex and changing environment that is full of uncertainty. As we know that the concept is very close with uncertainty. To get an investment return that can meet the benefit obligations and improve the performance of the Pension Fund, the managers or the Board of the Pension Fund must be able to mitigate the risk by better planning and controlling risks (Pension Fund Bureau, 2008). In mitigating the risks, pension fund managers will need to consider relevant financial and non-financial information in their decision making. The accountant's Ability to present required information in decision making is closely connected with the quality of the available management (Kafafian, 2001; Rezaee, 2005) and the good information that can be obtained by an effective Management Accounting System (MAS) is an important way to provide information in decision making (Cole, 1988).

The functions of management accounting and risk management are expected to be complete each other (Bhimani, 2009; Collier et al., 2007; Mikes, 2006) and meet the goal to assist management in decision making. In practice this occurs in the "ex ante" and "ex post" perspectives. The Management accounting provides information for planning ("ex ante") and controlling ("ex post") within an organization. However, risk management through a "risk-taking" means it has already considered "ex ante" and if a decision has been made ,the risk control will in "ex post" perspective (Bessis, 2002).

Financial institutions are a business that manage risk (Bowling and Rieger, 2005; Hakenes, 2004; Bowling et al., 2003), management accounting contributes information to perform risk management. Risk management is carried out to improve the performance of organizations or companies in the terms of pension funds . Collier (2006), stated that risk management leads to improved organizational performance, especially in terms of awareness of the risks that can affect the profile of low capital market risks.

Furthermore, management accounting systems may play a role in creating a positive effect on organization performance . This is proved by Agbejule (2011) in his research which stated that:

... highest performance for flexibility value firms is achieved when high interactive and low diagnostic MAS use is employed. On the other hand, for control value firms, this study indicates that using both high diagnostic and interactive MAS creates a positive effect on performance.

This study aims to explain the effects of management accounting on risk management and its implications for organization performance in terms of the Pension Fund's financial performance. Financial performance will be measured by the existing criteria stated in the Indonesian Association of Pension Funds (ADPI).

2. Review of Literature

2.1 Management Accounting

The International Federation of Accountants (IFAC, 1998) defines management accounting as "the process of identification, measurement, accumulation, analysis, preparation, interpretation, and communication of information (financial and operational) used for the planning, control and effective use of resources by management ". So it can be said that, accounting management becomes an integrated part of the management process in an organization. Meanwhile, according to Hansen & Mowen (2007): "*Management Accounting is an information system that produces output using inputs and processes them to achieve the specific objectives of management*".

Furthermore, management accounting according to Cole (1988) "a tool for Achieving high performance, as it provides a measurement of performance, warning of risks, information for decisions, and the data for planning". The statement highlighted that management accounting is a tool that is used to provide required information for the management in carrying out the functions of management, and can also be used as a tool to manage an organization's resources efficiently.

Management accounting plays an important role in planning, controlling, communicating, monitoring and interconnecting with all other divisions of the organization (Atkinson et al., 2001; soin, 2005). Management accounting plays a role in identifying, collecting, measuring, analyzing, interpreting, and communicating the information that will be used by management to achieve the basic objectives of the organization (Hansen & Mowen, 2007).

Based on the description above, it can be said that basically the role of management accounting is to provide information that allows managers to focus on the achievement of organizational objectives, especially to assist managers in making decisions.

2.2 Risk Management

Risk management can be defined as: "risk management is a rational attempt to reduce or avoid the Consequences of loss or injury" (William et al., 1998). While CIMA in Collier et al. (2007) defines risk management as: "Process of understanding and managing the risk that organization is subject to inevitability Attempting to Achieve its corporate objectives" The Institute of Risk Management (2002) in Collier et al. (2007) defines risk management as: "The process which Organizations methodically address the risk to their activities with the goal of Achieving sustained benefit within and across the portfolio of all activities". COSO (2004) in Moeller (2007) defines risk management as: *A process, affected by an entity's board of directors, management and other personnel, applied strategy setting and across the enterprise, designed to identify potential events that may Affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.*

Risk management framework for the financial institution generally includes four components - risk identification, risk measurement, risk mitigation, and risk monitoring and reporting (Bessis, 2002). The Elements of risk management according to the Institute of Risk Management (2002) in Collier et al. (2007) are ; Risk Assessment, Risk Evaluation, Risk Treatment, Risk Reporting.

As the types of risks that have been mentioned above, operational risk, measures the potential losses to the interference that may arise in the company's operational process (Marshall, 2001). According to Basel II, the definition of operational risk is "the risk that directly or indirectly results in losses caused by the failure and improper internal processes, people and systems or external events ". "The risk covers all the organization malfunctions, the consequences significant consequences which aresometimes fatal for the institution". (Bessis, 2002). Global operations, providing more complex products and services , results in increased transaction volume and volatility, and leads to an increase in operational risk (Marshall, 2001).

In the context of operational risk management, the primary function of management accounting is to provide information for internal decision making, dealing with business processes, people, and investment in a system. Relevant information provided by the MAS (Management Accounting System) will assist managers in making effective decisions, and help prevent unexpected losses. According to IFAC (1998), management accounting information consists of financial and operational information. This information will be a performance and activities indicator that can improve performance in the future. Thus, this study only focuses on operational risk which is directly related to the functions of management accounting information compared to other types of risks such as credit risk and market risk.

Anderson (2008) stated that accounting and management control systems are an important tool in managing operational risk. A good and consistent Strategic business planning and budgeting process to follow the various types of operations that are consistent with the budget may limit unexpected loss and operational deficiencies (Marshall, 2001).

2.3 Management Accounting Practices in Managing Risk

Management accounting is expected to provide information for long-term operational decision making. Management Accounting System should provide relevant information for decision making, such as the allocation of resources, introduction of new products or services or performance evaluation.

Financial statement analysis, one of the tools / techniques in management accounting practices, is most used in managing risks, especially the operational risk of financial institutions (Rasid et al., 2011) Financial statement analysis is defined as: the process of identifying the financial strengths and weaknesses of the firm by properly establishing relationship between the items of the balance sheet and the profit and loss account (Van Horne, 1992:133). Financial statement analysis has been very helpful in managing operational risk. This may be due to financial statement analysis that provides information that can be used as a direct indicator on the performance of the company, and then used to measure risk. These findings may reinforce the statement that the focus of financial institutions in managing risks is to quantify operational risks in monetary size (Dun & Bradstreet, 2007).

Furthermore, there are three items that are considered to be very helpful in managing the risk; budgetary control and budgeting, business planning, business strategy. Budgeting and budgetary control is a control process that is conducted in the budgeting process. Wherever possible, costs should be reduced or at least maintained at current levels. Cost reduction program will reduce costs by improving production methods and processes, job responsibilities, as well as the quality of products and services.

Value analysis needs to be conducted with regard to the procedures and specifications in producing and distributing products or services. The aim is to identify which elements in the process can be changed to reduce the costs to increase revenue and at the same time maintain the quality and value of products or services (Shim & Siegeel, 2000.22).

Budgetary control and budgeting is expected to make the budgeting process efficient and consistently cover variance in the budget and, limit losses. (Marshall, 2001). Furthermore, business planning and business strategy can be used to manage risk.

Business planning is an agreement on how the management teams plan to carry out certain functions in optimizing organization's performance (Thompson, 2003). Business planning creates an overview about the critical risks that will be faced by organizations. For example, the risk will be associated with investments, sales growth, product availability, etc. Business planning and business strategy is a qualitative business techniques (such as analysis of strengths, weaknesses, opportunities, and threats and, scenario analysis) used to develop a long-term direction in preventing business loss (Marshall, 2001 in Rashid et al., 2011).

Benchmarking, productivity analysis, cost control and cost management, statistical analysis, relevant costing, decision making analysis and cost-benefit analysis, are perceived to be moderately helpful in managing operational risk (Rasid et al., 2011). In the study, the researcher does not consider productivity analysis, cost control and cost management, as technical management accounting tools because both are just a concept to minimize control and manage costs (Shank, 2007).

Benchmarking is a process where companies identify critical success factors, learn about the best practices that have been done by another company (or other units within the company), and then implement the improvements in company's process to achieve the same performance as its competitors (Blocher, 2000). While productivity analysis is an analysis of the company's productivity that is defined as goods and services produced per unit of labor, capital or both (Bansal, 2010). Furthermore, statistical analysis is the process of collecting, analyzing and interpreting numerical data using probability theory, especially the method of sampling from a population (Miller, 2003).

The other technique is relevant costing analysis and decision making related to tactical decision-making approach that emphasizes the importance of the identification and use of relevant costs. Relevant costs are future costs that differ for each alternative. Only future costs that may be relevant to the decision are used. However, to be relevant, a cost not only has to be a future cost, but also must be different from one alternative to another alternative (Hansen & Mowen, 2007).

While cost-benefit analysis is a related technique which management can use to decide how big significant the benefit obtained from a solution of the problem is, when compared with the costs incurred. Any decision on the alternative solutions should be related to cost efficiency (Hansen & Mowen, 2007).

Balanced Scorecard (BSC), Strategic management accounting (SMA), quality improvement activities and strategic cost management (SCM), also moderately help to manage the operational risk (Rasid et al., 2011). However, this study does not consider SMA and SCM as management accounting tools or techniques because both management concepts are used in determining the company's strategic positioning to gain a competitive advantage (Hoque, 2003).

BSC has four perspectives; learning and growth, internal business processes, customer satisfaction and financial performance that can be used to provide risk indicators (Beasley et al., 2006; Marshall, 2001). Risk indicators are very useful in analyzing operational risk and cause operational managers to focus on the problem before they give up (Marshall, 2001 in Rasid et al., 2011).

Quality improvement activities such as Total Quality Management (TQM) assumes that managers control the output generating process through careful selection of the input and, minimize adverse events which can occur due to poor quality resources or process. Thus, TQM and other quality programs seem helpful in managing operational risk by changing the risk profile of operational processes and resources.

This is conducted to improve the availability, quality, relevance, flexibility, comfort, and sustainability of a wide range of input and output processes (Marshall, 2001 in Rasid et al., 2011).

There are three important practices that are used in managing operational risks. They are: economic value added (EVA), activity-based costing / management (ABC / ABM), and standard costing. Traditionally the management accountant should always use standard costing in estimating the cost of the various activities that are determined at the beginning of the period, these costs are compared to actual costs that occur at the end of the period to determine the difference, which is known as the accounting and operational differential (Marshall, 2001 in Rasid et al., 2011).

The three practices may not be widely used in financial institutions; therefore they cannot help directly in managing operational risk.

EVA is a relatively new concept in performance measurement (Bardia, 2008). EVA is economic value created by companies from their activities or strategies in a certain period. EVA principle provides a good measurement system to assess the performance and financial achievements of a company's management because EVA is directly related to the market value of a company (Hansen & Mowen, 2007).

Activity based costing (ABC) is an approach in determining production costs that charges fees to the products or services based on resource consumption caused by the activities (Blocher, 2000).

It can also be said that the ABC is a system that maintains and processes the company resources 's

financial and operational data based on activities, cost objects, cost drivers, and activity performance measurements. ABC is used to improve the accuracy of cost analysis by improving the way cost research relates to cost objects (Blocher, 2000).

ABC / ABM is still not widely practiced (Hussain, 2000; Chenhall and Langfield-Smith, 1998; Abdul Rahman et al., 1998; Innes and Mitchell, 1995). Unlike manufacturing companies (Maliah et al., 2004; Abdul Rahman et al., 2008) in which the time is taken to manufacture a particular product to be standardized and measurable, the time used to measure the main services cannot be standardized because of the difficulties in measurements, precludes the use of standard costing. In fact, this practice cannot be used widely, but can also be used as a symbol of the lack of importance of these practices in managing operational risk.

However, the overall mean score is high for all practices and this illustrates the fact that the financial institution is governed by strict regulations. The financial industry needs to be prepared to follow all the rules and guidelines issued by law enforcement (Rasid et al., 2011).

2.4 Organization's Performance

Robertson (2002) in Mahmudi (2007) explains that performance measurement is a process of assessing the progress of work towards the achievement of the defined goals and objectives. Jones (2004) stated that organizations must constantly change to develop their effectiveness. These changes are shown to find or develop a way of using the existing resources and capabilities to enhance the ability to create value and improve performance.

Rue and Byars (1981) defined performance as degree of accomplishment. The higher performance of the organization, the higher the level of achievement of organizational goals. Therefore an organization can be said to have optimum performance, if it produces something beneficial for the stakeholders (Hessel, 2003). Under Act 11 year 1992 about Pension Fund, pension fund stakeholders are the Founder, Board of Trustees, Board, and participants.

To assess the performance of the organization requires some indicators (criterias) to measure and fit to the purpose or reasons why an organization is established. Bastian (2006), stated that performance indicators are quantitative and qualitative measurements that describe the achievement level of the objectives. Indonesia Pension Fund Association (ADPI) determines the criterias of pension fund's performance assessment as follows:

- a). Return on asset that is calculated using the formula of net investment return divided by average net asset (Weight 30%).
- b). Return on Investment, is calculated using the formula net investment returns plus Investment Assessment Difference divided by average investment (Weight 25%).
- c). Operational Cost Ratio is calculated using the formula of Operating Costs divided by Net Assets (Weight 15%).
- d). Funding ratio is assessed by using the ratio of net asset and projected actuarial liability (Weight 10%).
- e). Investment Portfolio, is assessed from the complexity of investment portfolio (Weight 10%).
- f). Compliance, is assessed from the compliance of the Board on the obligation to have a certificate of basic knowledge on pension fund liability of pension funds (Weight 10%).

ROA and ROI levels are expected to grow and increase according to the investment objectives that are set out by the founders in investment guidance. The assessments over ROA and ROI pension funds also consider the components that make up concerned -pension fund investment portfolio. In other words, ROI of each type of investment will be compared with the rate of return from equivalent instrument. For EPF PPMP's ROI and ROA levels need to be linked to the technical actuarial interest rate assumption. Technical actuarial interest rate is basically the result of the expectations of management of the Pension Fund wealth in the long term (ADPI, 2006).

Ratio of Operating Expenses is expected to be as small as possible. This ratio also measures the cost of conformity with Pension Fund regulation. Cost Realization is expected to be in accordance with the budget work plan that has been approved by the Founder and Board of Trustees. Funding ratio is expected to exceed the level of 100%, This means that Pension Fund does not experience the deficit that can cause the obligation for the Founders to pay additional fees according to appropriate actuarial valuations for EPF PPMP. (ADPI, 2006). In this study, researchers will only use the measurements of the pension fund's financial performance determined by ADPI to achieve the research objectives.

3. Theoretical Framework

It is based on the Basic guidelines of Public Pension Fund Investment prepared by the Investment Committee ADPI Team (2003) which stated that: "risk management aims to improve financial performance of a company, make sure that the company will not suffer from unexpected loss, achieve a combination of optimum risk and return".

DPPK and DPLK managers's primary tasks is to manage pension contributions to generate a return

that can insure the growth of pension benefits, as well as manage the administrative aspects of participant data and payment to participants. In Managing risk, Pension funds will consume a certain amount of funds from fees for administrative and operating costs. This fee will reduce the amount of available funds to invest, which in turn can reduce the potential of investment returns.

Management accounting techniques and tools are able to consider the further information spectrum to be used in decision making, planning and controlling. Management accounting system is part of management control system (Chenhall, 2003) and "something that is not feasible is when management control is considered as something that is separate and independent from risk management or the concern to improve governance" (Bhimani, 2009:3). Although the relationship between management accounting and risk management has occurred lately, it develops fast. Some researchers (Williamson, 2004; Collier et al., 2004; Soin, 2005; Collier and Berry, 2002; McWhorter et al., 2006; Mikes, 2006) have explored the relationship. In another study, Woods (2009) conducted a case study of the control system of risk management in a public sector organization. A number of variables that affect the risk management system system at the level of central government's operational policy, information technology and communications, and the size of the organization. A number of important variables are determined by the policy and resources set by the central government (Wood, 2009). This is in line with the financial institution that is driven by government regulations in carrying out the risk management system.

In another study, Collier et al., (2007) investigated the role of management accountants in managing risk. Financial Directors are identified to have an important role in risk management (Collier et al., 2007), and in most organizations, management accounting functions are normally under the responsibility of the financial director.

The Integration between management accounting and risk management are in the area of performance measurement which is known as the term of BSC integrating as a strategic performance measurement system and ERM as the best risk management practice (Ballou et al., 2006; Scholey, 2006; Beasley et al., 2006; McWhorter et al., 2006). Scorecards can be improved by combining the goals and objectives in risk management and by making a performance-based risk matrix. BSC has four perspectives; learning and growth, internal business processes, customer satisfaction and financial performance (Kaplan & Norton, 1996).

Empirical evidence (Collier et al., 2004; Soin 2005) showed that there are only minor integrations between management accounting and risk management. However, the results of interviews conducted by Collier et al. (2007) suggested that management accounting can indeed play an important role in the existence of risk management. Furthermore, there is research by Rasid et al. (2011), the study results showed that management accounting and risk management functions are closely related and, assist organizations in decision making. The results of this study gives a contribution as a reference for the very few studies that examine the significant relationships between management accounting and risk management. Stewart Lawrencen and Ruitling Ba. (2008) suggested that management accounting is related to the risk elements and the uncertainty in decision making, objectifying and quantifying the risk.

However, the integration between strategic performance measurement systems (such as BSC) and ERM will be very beneficial to the organization. BSC can be used to enhance the ERM benefits and this integration will help ERM to increase BSC effectiveness. From political and institutional perspective, ERM (as part of the control) will complete (as contingency theory) each other in the organization On the other hand; there is a study that shows the relationship between the effectiveness of risk management and corporate performance (Andersen, 2008). The same thing was also expressed by Collier (2006), "Risk management was perceived to improve organizational performance, especially risk awareness as affected to a lower risk profile for capital markets."

Another opinion is shown by the study of Jafari M, et al. (2011) ; there is a positive and significant relationship between risk management and firm performance. Nachailit, I et al. (2011) suggested that the company's competitive advantage is considered as a mediator in risk management effectiveness to improve company performance. Some research about pension funds has been conducted by researchers, especially the research relating to risk management such as Franzen (2010), stating that the risk-taking capacity is a major element in the Defined Benefit pension fund. This empirical study showed that in general, risk management has become a sophisticated achievement, but it often occurs in the presence of a strong force from regulators and accounting issues, rather than by the pension fund itself. Furthermore, regulation changes of the regulators and accounting standards lead to an increased ability to take risks by defined benefit pension funds. Stewart (2010) showed the framework of risk management in some pension funds and other financial institutions.

Considering pension fund performance evaluation , Pension Fund Association of Indonesia (ADPI) determined some assessment criteria as follows: (a). Return on assets, which is calculated using the formula of net investment return divided by the average net assets (Weight 30%); b). Return on Investment, is calculated using the formula of net investment returns coupled with SPI divided by the average investment (Weight 25%); (c). Operational Cost Ratio, calculated using the formula Operating Costs divided by Net Assets (15%); (d).

Funding ratio, assessed using the ratio between the net asset projected actuarial liability (Weight 10%); From Basic concept of Entity theory as the basic theory is in agency theory and the four perspectives of pension funds accounting and developed into derivative theories in management accounting, risk management and organizational performance especially pension funds.

4. Study Model and Hypothesis

Based on the theoretical framework, it can formulate a paradigm of the relationship between management accounting, risk management and organizational performance, as in figure 1, the following:

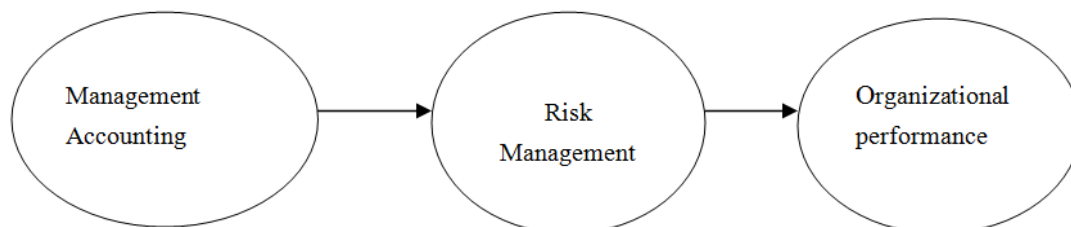


Figure 1: Theoretical Framework of The Study

Based on the framework above, the hypothesis that can be formulated in this study:

1. Management accounting affects risk management.
2. Risk management affects organizational performance.

5. Methodology, Finding and Discussion

The method used in this study is exploratory study because it is a study that only inspects or investigates the proposed variables (Cooper and Schindler, 2006). Explanatory study refers to a theory or hypothesis that will be tested as the cause of a phenomenon.

Data collecting techniques conducted through mailed-questionnaires and semi-structured interviews. The questionnaire was sent to the managers of an Employer Pension Fund Benefit Pension Plan or DPPK PPMP in West Java-Banten listed by the Pension Fund Bureau in 2010 and represented by three members of the Board of the pension fund DPPK PPMP. According to the Pension Fund Bureau's Annual Report in 2010, there were 28 DPPK PPMP and PPIP in Jabar-Banten region, 24 DPPK PPMP and 4 DPPK PPIP.

The disadvantage of mailed questionnaires is that the number delivered, compared to the number of letters returning is quite low. According to Sekaran (2009:83) the response rate of 30% is considered acceptable. Therefore, to speed up the acquisition of responses to questionnaires follow-ups by phone and e-mail with the respondents are made.

The study population changes every year due to the establishment of new DPPK PPMP, dissolution, merger and diversion programs. In 2010, the study population was 208 DPPK PPMP. While West Java-Banten DPPK PPMP was the study samples that were selected. There were 24 DPPK PPMP operating in West Java - Banten in 2010 and each was represented by three members of boards. The Selection of EPF PPMP in West Java - Banten was researched with the following criteria: the DPPK PPMP has an average financial performance measured from the level of ROI of at least 10%(Pension Fund Bureau, 2010).

In accordance with the hypothesis of the proposed research, the data will be tested using path analysis. Path analysis examines the structural causal relationship between independent variables and dependent variables.

The first hypothesis to be tested is the effect of management accounting to risk management in Employer Pension Fund/Defined Benefits in West Java-Banten. Based on the results of data processing, management accounting gives a 63.67 % contribution to institution's risk management on the Employer Pension Fund/Defined Benefit Pension Plan in West Java-Banten (R^2). While 36.33% is the influence of other factors out of management accounting.

Based on the test results, it can be seen t_{count} management accounting variable (6.2097) is greater than t_{table} (2,074). Since the t_{count} is greater than t_{count} , with the error rate of 5% it is decided to reject H_0 so that H_1 is accepted. Based on the test result, it can be concluded that management accounting significantly affects risk management in Employer Pension fund/Defined Benefit Pension Plan in West Java-Banten. The results of these tests provide empirical evidence that better implementation of management accounting will improve the application of risk management in Employer Pension fund/Defined Benefit Pension Plan in West Java-Banten.

The second hypothesis to be tested is the effect of risk management on the organizational performance in Employer Pension Funds/Defined Benefit Pension Plan in West Java-Banten. Based on the results of data processing, risk management contributes (influence) of 63.24% on the performance of the organization at Employer Pension fund which held Defined Benefit Pension Plan in West Java-Banten (R^2). While the remaining 36.76% is the influence of factors other than risk management.

Based on the test result, be concluded that t_{count} of risk management variables (6.1517) is higher than

t_{table} (2.074). Because the value of t count is higher than t_{table} , with the error rate at 5%, H_0 is rejected and H_1 is accepted. So based on the results, it can be concluded that risk management significantly affects organization performance of Employer Pension funds / Defined Benefit Pension Plan in West Java-Banten. The results provide empirical evidence that the more effectively risk management is carried out, the better organization performance will be.

6. Conclusion

Management accounting significantly influences the risk management of (Employer Pension Fund / Defined Benefit Pension Plans) in West Java-Banten. But the magnitude of the effect is not high; it shows that there are other variables that affect the implementation of risk management such as good governance and internal control. Risk management significantly influences organizational performance in organizations which have (Employer Pension Fund / Defined Benefit Pension Plans) in West Java-Banten. But the magnitude of the effect is not high, it indicates there are other variables that affect organization performance such as strategy, quality and management's commitment.

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