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Jatinangor, October 23rd-24th, 2013

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Proceedings of

INTERNATIONAL CONFERENCE ON
MATHEMATICAL AND COMPUTER SCIENCES

PREFACE

This event is a forum for mathematician and computer scientist for discussing and exchanging information and knowledge in their area of interest. It aims to promote activities in research, development and application not only on mathematics and computer sciences areas, but also all areas that are related to those two fields.

This proceeding contains sorted papers from the International Conference on Mathematical and Computer Sciences (ICMCS) 2013. ICMCS 2013 is the inaugural international event organized by Mathematics Department Faculty of Mathematics and Natural Sciences University of Padjadjaran, Indonesia.

In this proceeding, readers can find accepted papers that are organized into 3 track sections, based on research interests which cover (1) Mathematics, (2) Applied Mathematics, (3) Computer Sciences and Informatics.

We would like to express our gratitude to all of keynote and invited speakers:

- Prof. Dr. M. Ansjar (Indonesia)
- Assoc. Prof. Dr. Q. J. Khan (Oman)
- Prof. Dr. Ismail Bin Mohd (Malaysia)
- Prof. Dr. rer. nat. Dedi Rosadi (Indonesia)
- Prof. Dr. T. Basarudin (Indonesia)
- Assoc. Prof. Abdul Thalib Bin Bon (Malaysia)
- Prof. Dr. Asep K. Supriatna (Indonesia)

We also would like to express our gratitude to all technical committee members who have given their efforts to support this conference.

Finally, we would like to thank to all of the authors and participants of ICMCS 2013 for their contribution. We hope your next participation in the next ICMCS.

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KEYNOTE SPEAKER

Multivariate Models for Predicting Efficiency of Financial Performance in The Insurance Company

(Case Study in the Insurance Company Listed on the Indonesia Stock Exchange)

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ABSTRACT: In this research was discussed about a multivariate model for predicting the efficiency of the financial performance insurance companies. Multivariate models which used are discriminant model and logistic regression model. Changing net profit is based for grouping data to two categories because of profit is often to used as an indicator of measurement performance company. The predictive variables are represented as 7 financial ratios. A multivariate model is obtained by comparing the results of discriminant analysis and logistic regression analysis. Five of seven financial ratios are significantly influence for predicting the efficiency of the financial performance insurance companies.

Keywords: financial ratio, financial performance insurance companies, discriminant analysis, logistic regression analysis

1. Introduction

Profit is one indicator of the performance of a company. Earnings growth constantly increasing from year to year can give a positive signal about the prospects of the company in the future performance of the company (Margaretta, 2010). Financial ratio analysis can be used as a tool for predicting the financial performance of a company. The financial performance of a company is a picture of a company's financial statements, as in the financial statements are estimates as assets, liabilities, capital and profits of the company. One of the usefulness of financial statements is to make a picture of the company from one period to the next on the growth or decline, and allow it to be compared with other companies similar industries.

Beaver (1966) using financial ratios as predictors of failure and states that usability can only be tested ratios relating to some specific purpose. The ratio is now widely used as predictors of failure. BarNiv and Hershberger (1990) presents a model that incorporates variables that are designed to identify the financial solvency of the life insurance. Three multivariate analysis (multidiscriminant, nonparametric, and logit) has been used to examine the implementation and efficiency of alternative multivariate models for life insurance solvency (Mahmoud, 2008).

In this study the authors present a multivariate model to predict the efficiency of financial performance based on net profit insurance companies listed on the Stock Exchange using financial ratios. Multivariate models were used, namely discriminant models and logistic regression models.

2. Literature Review

2.1 Earnings and Earnings Growth

Profit or gain in accounting is defined as the difference between selling price and cost of production .. (Wikipedia, 2011). Corporate profit growth is the result of a reduction profit in year t the profit for the year $t-1$ divided by profit for the year $t-1$. (Zainuddin dan Jogiyanto, 1992). Earnings growth forecasts