

RESEARCH ON THE FORECAST OF INTERNATIONAL EQUITY FUND PERFORMANCE

JUEI-CHAO CHEN¹, SHUENN-REN CHENG², YA-TZU LIU¹ AND HSU-SHENG WANG³

¹Institute of Applied Statistics
Fu Jen Catholic University
Taipei, Taiwan
006884@mail.fju.edu.tw; ya_122@hotmail.com

²Department of Business Administration
Cheng Shiu University
Kaohsiung, Taiwan
tommy@csu.edu.tw

³Institute of Technology Management
Chung Hua University
HsinChu, Taiwan
r92620@ms36.hinet.net

Received February 2008; revised August 2008

ABSTRACT. *The purpose of this study is to establish a fund performance classification model that can forecast the probability of positive or negative return of the funds. The positive/negative return of fund performance considered by this study is the return of the i th fund subtracted by the risk free interest rate. A positive value represents a favorable fund performance while a negative value represents the otherwise. In statistical analysis, correlation analysis was firstly used to search for the possible important factors of mutual fund performance. These factors provide a CHAID of Intelligence Data Analysis to ensure which important factors could possibly influence the fund's return on equity. With the interactions among important factors as independent variables, logistic regression was used to establish the classification model. Also, using the same regression method, another classification model was established with the important factors as the independent variables. The results discovered that the total correct classification rates of CHAID-logistic regression model are greater than the total correct classification rates of logistic regression model. The forecasted results can provide investors with more information about investments selection.*

Keywords: Classification, Data mining, Intelligent data analysis, Logistic regression

1. **Introduction.** In a liberalize and globalize investment market, aside from having more opportunities to obtain higher returns, investors at the same time will also face lots of investment risks. Therefore, ways on how to obtain the balance in return and risk became one of the subjects most investors are concerned with. Besides supplementing the insufficient professional investment knowledge of individual investors, collecting their capital and applying a “mutual fund” of specialized management through fund managers with professional knowledge can also solve the limitation caused by the inability to adequately segregate risk due to insufficient capital. In the recent years, financial commodities with stable returns and segregated risk became the essential investments of investors, but since the variety and number of mutual funds increases everyday, investors now faced dilemmas in selecting mutual funds.