A technical analysis is based on the historical finan-cial time-series data. However, financial time series exhibitquite complicated patterns (for example, trends, abruptchanges, and volatility clustering) and such series are oftennonstationary, whereby a variable has no clear tendency tomove to a fixed value or a linear trend

Quah and Srinivasan (1999)identified 5 keyfactors that will affect the stock price movement namelyyield, liquidity, risk, growth, and momentum.Izumi andUeda (1999)mentioned that macroeconomic factors suchas inflation and short-term interest rate have direct impactson the stock returns.

Taiwan Stock Exchange (TSE) is the stock market inTaiwan whereby stocks may be bought and sold. Likeevery investment, investing in stocks entails some degreeof risk. There are two types of risk; systematic risk anderroneous risk. The erroneous risk can be overcome by asound investment strategy, called diversification. Howeverby using a better prediction model to forecast the futureprice variation of a stock, the systematic risk can be mini-mized if it is not totally eliminated.

techniques for automated stock market fore-casting and trend analysis. They used principal componentanalysis to preprocess the input data, a NN for one-day-ahead stock forecasting and a neuro-fuzzy system for ana-lyzing the trend of the predicted stock values.

Recently, neuron-fuzzy networks have been demon-strated to be successful applications in various areas suchas inChang, Liu, and Wang (in press), Chang and WarrenLiao (2006), Chang and Wang (2006). Two typical types ofneuron-fuzzy networks are Mamdani-type (Wang &Mendel, 1992) and TSK-type models (Takagi & Sugeno,1985).

Ten technical indicators are used in this paper to construct the699knowledge base, however, other macro-economic variables like700currency exchange rates, inflation, government policies, interest701rates etc. that affect stock market can also be used as the inputs702to the models or in construction of the knowledge base of an expert703system. Average volume of a stock is also a potential candidate that704may be useful in deciding the trend