IMPACT OF MICROSTRUCTURE CHANGES ON MARKET EFFICIENCY AT THE NAIROBI SECURITIES EXCHANGE

Agatha Nabwire Okumu - MBA

Department: *Business Administration*

Supervisors:

1. *Mr. Dominic K. Ngaba*
2. *Dr. Fredrick W. Ndeda,*

Of recent, advances in electronic communications have played an increasing role in changing the microstructure of financial markets. Many stock exchanges across the world are gradually
replacing their traditional physically convened markets with electronic markets. For securities
markets to contribute to wealth maximization objective of investors and economic growth, they need to be efficient in terms of securities' price discovery process. The Nairobi Securities Exchange (NSE) has therefore made various changes to its market microstructure, especially the introduction of an automated trading system. The main rationale behind the microstructure changes is to gain market efficiency. Information is however lacking on how such changes have affected the informational efficiency of the Exchange. This study tried to determine whether the introduction of the microstructure changes had improved the informational efficiency of the securities market. Using a data collection sheet, secondary data was obtained from the NSE's authorized data vender (Synergy Ltd.) relating to the NSE 20 Share Index for the period spanning 12 years (2000-2012). The data was analyzed using non parametric approaches to measure market efficiency before and after market automation. The results indicate that mean market returns in the post automation period were higher and more volatile than those in the pre automation period. This higher market returns can be attributed to improved price discovery process, while the higher volatility may be due to changes in market microstructure through the trading system. The results from normality tests show that market returns are not normally distributed in both the periods. In addition, the runs test results reveals that market returns are more random in the period following automation than the prior period, implying that the market has improved in efficiency. The general conclusion of the study is that introduction of automation in the Kenyan securities market has led to improved market efficiency, providing support for the adaptive market hypothesis. The findings of this study are of importance for policy making, especially interested in improving the efficiency of the Kenyan securities market. The study recommends that the NSE and CMA should consider pursuing full market automation by

enabling online and internet securities trading and use of mobile money transfer platforms in paying for stock transactions, in addition to the adoption of a hybrid trading system – both call and continuous trading system – to enhance liquidity and transparency in trading.