OPTIMIZING STRATEGIES FOR VWAP BASED TRADING ALGORITHMS

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This Dissertation was Submitted to the Department of Computer Science and Engineering of the University of Moratuwa in Partial Fulfillment of the requirements for the Degree of MSc in Computer Science.

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November/2008

Declaration

The work included in this report was done by me, and only by me, and the work has not been submitted for any other academic qualification at any institution

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I certify that the declaration above by the candidate is true to the best of my knowledge and that this report is acceptable for evaluation for the CS6999 MSc Project

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Abstract

In this thesis I propose optimization strategies to an existing VWAP algorithm. The report provides information on the extent of literature review done to acquire the knowledge required to complete the identified research. The content included provides a detailed overview of the algorithmic trading domain in general and then attempts to provide an insight in to VWAP algorithms and some basic concepts used in algorithmic trading. As the main research work I describe in detail the optimizations proposed and provide test results to justify my claims. The results were obtained through the tests carried out using back testing techniques on actual market data obtained from New York stock exchange.

Acknowledgment

I would like to acknowledge my research supervisors Dr. Sanith Wijesinghe and Dr. Sanath Jayasena who created the interest in me about algorithmic trading and then guided me on various aspects of real research work and encouraged me on making this project a success, amidst their really busy schedules. My sincere thanks must go to Prof. Gihan Dias and Mrs Vishaka Nanayakkara for the guidance and the inputs they gave in shaping my research work. In addition I would like to express my sincere gratitude to Mr. Hemantha Jayawardena the Chief Deployment Officer at MillenniumIT software Ltd, Sri Lanka, for permitting me to use MillenniumIT's resources to complete my project. I also wish to thank all my managers and colleagues at my employer MillenniumIT Software Ltd., for being very flexible with me and supporting me on various ways in making this research project a reality. Finally, a big thank you to my parents, my wife and my sister who have been very supportive during this period.

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List of Abbreviations

VWAP	-	Volume Weighted Average Price
NYSE	-	New York Stock Exchange
PCA	-	Principle Component Analysis
TAQ	-	Trade and Quote