TECHNICAL ANALYSIS STRATEGIES ON XAU/USD (GOLD/US DOLLAR) TRADING FOR PROFITABILITY IN THE FOREIGN EXCHANGE (FOREX) MARKET

Thesis

Written by:

Regina Prita Masaki Hutagalung (171223848)

FACULTY OF BUSINESS AND ECONOMICS (IBMP)

ATMA JAYA YOGYAKARTA UNIVERSITY

2021

APPROVAL PAGE

THESIS

TITLE:

TECHNICAL ANALYSIS STRATEGIES ON XAU/USD (GOLD/ US DOLLAR) TRADING FOR PROFITABILITY IN THE FOREIGN EXCHANGE (FOREX) MARKET

Written by:

Regina Prita M.H

171223848

Have been approved to be examined by:

Thesis Adviser

16/7 '21

Alexander Jatmiko W., S.E., S.I.P., M.Sc.F.

Thesis

Technical Analysis Strategies on XAU/USD (Gold vs. U.S. Dollar) Trading for Profitability in the Foreign Exchange (FOREX) Market

Written by:

Regina Prita Masaki Hutagalung

NPM: 171223848

Has been accepted in front of the examiners committee on the 2nd of August 2021 and was declared to be accepted as one of the requirements for a Bachelor's Degree (S1) in the International Business Management Program

Examiner Committee Structure

Head of Examiner Committee

Prof. Dr. Sukmawati S., MM.

Members

A. Jatmiko Wibowo, S.E., S.I.P., M.Sc.F.

Drs. Felix Wisnu Isdaryadi, MBA

Yogyakarta, 9th August 2021

Dean of Business and Economics Faculty

Atma Jaya Yogyakarta University

Drs. Budi Suprapto, MBA., Ph.D

UNIVERSITAS ATMA JAYA YOGYAKARTA
Fakultas Bisnis dan Ekonomika

Letter of Statement

No. 799/J/I

Based on the Thesis Defense results that has been held on Monday, 2 August 2021 with the following examiners:

1. Prof. Dr. Sukmawati S, MM.	Chairman
2. A. Jatmiko Wibowo, SE., SIP., MSF.	Member
3. Drs. Felix Wisnu Isdaryadi, MBA.	Member

The examiners team has decided that:

Name	: Regina Prita Masaki Hutagalung
Student Number	: 171223848
Program	: International Business Management

Has passed

Thesis Revision

The thesis revision has been reviewed and confirmed by all examiners.

This letter of statement is made for Yudisium/Graduation of Bachelor of Management in Faculty of Business and Economics Universitas Atma Jaya Yogyakarta.

Dean,

Drs. Budi Suprapto, MBA., Ph.D

Jl. Babarsari No. 43 Yogyakarta 55281 Indonesia Kotak Pos 1086 / YKBB
Telp. +62-274-487711 (hunting) Fax. +62-274-485227
Website : //www.uajy.ac.id

AUTHENTICITY ACKNOWLEDGEMENT

NAME	: Regina Prita M. Hutagalung
ID	: 171223848
PROGRAM	: International Business Management
FACULTY	: Business and Economics
	: *Technical Analysis Strategies on XAU/USD (Gold vs. US Dollar) Trading for Profitability in the Foreign Exchange (FOREX) Market*

I, the author of this research hereby declare that this thesis that has been completed is my own work and does not contain the work of others except for some parts that are required with references and proper procedures for writing a scientific paper.

Yogyakarta, 16th July 2021

Regina Prita M.H

ACKNOWLEDGEMENT

First and above all, I sincerely praise and thank Jesus Christ the Lord for His blessings, strengths, and unconditional love from the beginning of my academic studies until this day, where I was finally able to accomplish this thesis as it should be. This thesis is one the academic requirements in order to complete my studies and obtain a Bachelor's Degree in the International Business Management Program of the Faculty of Business and Economics Universitas Atma Jaya Yogyakarta (UAJY), with a minor in Finance. During my study in this university, I have learnt many valuable lessons that I believe would be useful for me in the future, whether it is to continue my studies for a master's degree or to achieve my career goals. Not only in terms of academics, but studying in this university has also helped me grow as an individual and made me become more independent.

This thesis would not have been possible without the support and inspiration of a number of wonderful people, which is why I would also like to express my deepest gratitude to:

1. My thesis adviser, Mr. Alexander Jatmiko W., S.E., S.I.P., M.Sc.F., for your kindness and patience in providing the time, guidance, and feedback throughout the thesis writing process.

2. My Seminar in Finance lecturer, Prof. J. Sukmawati Sukamulja, M.M., Dr. for the valuable lessons and inputs to be included in the proposal.
3. My family, especially my father and mother for their endless care and support, not only during the completion of this thesis, but also in every life decisions that I make. Thank you for always being patient with me.
4. My amazing friends from the International class, Angel, Korvilina, Adinda, Stefany, Monica, Devi, Devina, Aldriant, Abel, Aryo, Distra, and Nicho, and Rivando for the help and support, as well as for making my 4 years of university experience a memorable one.
5. My beloved high school friends, Fidela, Imelda, Triani, Verika, Angel, Andro, and Irene for the friendship, love, and support during quarantine. I am forever grateful to have you all in my life.
6. William Hugo, for always being there for me during difficult times and accompanying me during my sleepless nights of studying and observing the FOREX market. I am forever thankful for your existence.

May God bless us all

Yogyakarta, 16th July 2021

Regina Prita M. Hutagalung

Table of Contents

TITLE PAGE: …….

APPROVAL PAGE ……....….i

EXAMINERS PAGE …….. ii

AUTHENTICITY ACKNOWLEDGEMENT…….……iii

ACKNOWLEDGEMENT……... iii

TABLE OF CONTENTS ……vi

LIST OF FIGURES…… x

LIST OF TABLES ……..... x

LIST OF APPENDIXES …….…….. xii

ABSTRACT …….…… xiii

CHAPTER I - INTRODUCTION

1.1 Background..... 1

1.2 Problem Statement 3

1.2.1 Research Questions..... 3

1.2.2 Objectives of the Research..... 3

1.3 Scope of the Research 4

1.4 Benefits of the Research..... 4

1.4.1 Theoretical Benefits..... 4

1.4.2 Practical Benefits 5
1.5 Organization of the Paper 5
1.5.1 Chapter I – Introduction 5
1.5.2 Chapter II – Literature Review 6
1.5.3 Chapter III – Research Methodology 6
1.5.4 Chapter IV – Analysis of Data 7
1.5.5 Chapter V – Conclusion 7

CHAPTER II - LITERATURE REVIEW

2.1 Trading vs. Investing 9
2.2 Gold during the Financial Crisis 12
2.3 XAU/USD in the Foreign Exchange (FOREX) Market 13
2.4 Methods for Analyzing the Market 14
2.4.1 Fundamental Analysis 14
2.4.2 Technical Analysis 15
2.4.3 Market Trend Analysis 17
2.5 Facts and Challenges in the FOREX Market 17
2.6 Opening a Portfolio in Online FOREX Trading 20
2.7 Candlestick Patterns 21
2.8 Technical Trading Indicators 26
2.8.1 Relative Strength Index (RSI) 26
2.8.2 Bollinger Bands 28

2.8.3 Moving Average Convergence Divergence (MACD) 30
2.8.4 Moving Average (MA) 31
2.8.5 Moving Average of Oscillator (OsMA) 34
2.8.6 Parabolic SAR 36
2.8.7 Stochastic Oscillator 37
2.8.8 Money Flow Index (MFI) 38
2.9 Terminology 41

3.0 Previous Research 46

3.1 Theoretical Framework 51

CHAPTER III - RESEARCH METHODOLOGY

3.1 Type of Research Design 53

3.2 Source of Data 54

3.2 Location and Time of Research 55

3.2 Data Collection Method 56

3.3 Method of Data Analysis 57

3.3.1 Technical Analysis Signals 57
3.3.2 Reversal Pattern 60
3.3.3 Determining the Percentage of Success in Technical Analysis 61

CHAPTER IV - DATA AND ANALYSIS

4.1 Data 64

4.1.1 Closing Prices of XAU/USD on April 2021 65
4.1.2 Closing Prices of XAU/USD on May 2021 66
4.1.3 Closing Prices of XAU/USD on June 2021 67
4.1.4 Observation Results 68
4.2 Analysis of Data 72
4.3 Discussion 89

CHAPTER V- CONCLUSION

5.1 Conclusion 91
5.2 Research Implications 92
5.3 Limitations of the Study 93
5.4 Recommendations for Future Research 94
BIBLIOGRAPHY 95

LIST OF TABLES

Table 2.1: Previous Studies ……..……..62

Table 4.1: XAU/USD Trading Positions ……89

Table 4.2: Summary of Categories ……94

Table 4.3: Technical Indicator Confirmation ……97

Table 4.4: Summary of Transactions ……...100

LIST OF FIGURES

Figure 1.1: Candlestick Bullish and Bearish Body ……34

Figure 1.2: Hammer and Inverted (Bullish Reversal Pattern) ……... 36

Figure 1.3: Hanging Man and Shooting Star (Bearish Reversal Pattern) …..…....…37

Figure 1.4: Marubozu Candlestick Pattern ……38

Figure 2.1: Relative Strength Index ……39

Figure 2.2: Bollinger Bands Indicator ……..……..41

Figure 2.3: MACD Indicator ……..…44

Figure 2.4: Three Moving Average (24, 50, and 100 MA) ……..…..…47

Figure 2.5: OSMA and MACD Trading Signals ……49

Figure 2.6: Parabolic SAR Indicator ……..49

Figure 2.7: Stochastic Oscillator Indicator …….50

Figure 2.8: Money Flow Index (MFI) ……..…..... 51

Figure 3.1: Theoretical Framework of the Study ……..…... 66

Figure 3.1: Signal by the Tools and Indicators, XAU/USD, M5 Chart …….……..…74

Figure 4.1: Closing Prices of XAU/USD in April 2021 ……..... 79

Figure 4.2: Closing Prices of XAU/USD in May 2021 ……..80

Figure 4.3: Closing Prices of XAU/USD in June 2021 ……..….... 81

Figure 4.4: Screenshot of XAU/USD Selling Signal ……..… 83

Figure 4.5: Screenshot of XAU/USD Buying Signal ……..……. 84

Figure 4.6: Screenshot of XAU/USD Transactions ……...….. 86

Figure 4.7: Distribution of Categories ……... 95

Figure 4.8: Profit and Loss Ratio ……...…… 97

Figure 4.9: Distribution of Successful use of Indicators ……...…..…… 102

LIST OF APPENDIXES

APPENDIX I ……..… 99

APPENDIX II ……..…. 107

TECHNICAL ANALYSIS STRATEGIES ON XAU/USD (GOLD/US DOLLAR) TRADING FOR PROFITABILITY IN THE FOREIGN EXCHANGE (FOREX) MARKET

Regina Prita M. Hutagalung

171223848

ABSTRACT

This research analyzes the strength of the technical analysis in predicting the trend of the market and future price movement of XAU/USD in the Foreign Exchange (FOREX) market. The experiment is expected to lead into several interesting findings about the use of technical analysis and whether it can be a useful strategy for XAU/USD trading. The research is performed in the period of 3 months using qualitative research design, where the trend reversal patterns are discovered using 3 technical indicators, the Bollinger Bands, Moving Average Convergence Divergence (MACD), Relative Strength Index (RSI), and the candlestick chart as the tool. 50 transactions were entered using the Meta Trader 4 & 5 platform and each position was categorized based on different time frames. The results showed that technical analysis is effective in obtaining profitability in XAU/USD trading where 62% of the positions resulted in a profit.

Keywords: *technical analysis, technical indicators, XAU/USD, foreign exchange market*