Investment Strategy and Risk Management: Improving Investor Profitability in Futures Trading

by I Ketut Yasa

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I Gede Iwan Sur[illegible]
Business Administration Department
Politeknik Negeri Bali
Bali, Indonesia
gedeiwan@pnb.ac.id

I [illegible]ut Yasa
Business Administration Department Politeknik Negeri Bali
Bali, Indonesia
ketutyasa@pnb.ac.id

Putu A[illegible]ni Prayustika
Business Administration Department Politeknik Negeri Bali
Bali, Indonesia
prayustika@pnb.ac.id

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Abstract

This study aims to examine the influence of investment strategy and risk management over futures trading and investor profitability. This research is predictive and uses a quantitative method. Data were analyzed using Structural Equation Modeling (SEM) and Partial Least Square (PLS) optimization with Smart PLS 3.2.7. This study uses investment strategies and risk management as independent variables, while futures trading and investor profitability as dependent variables. The result of this study indicated that investment strategy and risk management are both influence futures trading, investment strategy also influences investor profitability, and futures trading influence significantly investor profitability with the T-test value of more than 1.96. However, risk management has no significant effect on investor profitability with a T-test value of less than 1.96.

Keywords : *investment strategy, risk management, futures trading, investor profitabilty.*

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1. Introduction

The profitability of investing in financial asset depends on the possibility and success of predicting the future movement of the market prices of financial asset. Thus, the constant interest of investors in this particular field comes as no surprise. The ultimate objective of any investor, trader or manager is to speculate, to generate profits in a consistent basis. Simsek A (2013),assumed that any financial innovation on portfolio risks is likely to lead to speculation rather than risk sharing due to the motives of the participants in market. An approach that can be implemented in order to maximize profits and simultaneously to minimize the risk of loss, is to define specific rules for buying and selling securities; rules that will be able to predict accurately the future movements of the market. These rules formulate the so-called trading strategy or system.

Menkhoff L. and Taylor MP (2007) tried to explain the continuously rising use of technical analysis and its apparent profitability. Among their arguments, they sustained that technical analysis could fit to the foreign exchange market due to not-fully-rational behaviour of the market and it might provide information on foreign exchange movements that cannot be explained through fundamental analysis. Gehrig T. and Menkhoff L (2006), also underlined the importance of technical analysis into the world of investment; especially they mentioned that it is by far the most important tool when dealing with FX and is rated second in the field of fund management. Later, Osler C. (2012), showed that technical trading strategies can represent a rational long run balance given the structure of the currency markets and traders' motivations. Relying also on the relationship between technical analysis and the Foreign Exchange market, in a recent study by Smith DM *et al.* (2016), it was found that during high-sentiment

periods, the use of technical analysis provided an edge to the hedge funds that helped them to succeed higher performance with superior market-timing ability a[39]t the same time achieve lower risk to their investments. [20]nother study that focused on forex market was [20]Novotný J, Petrov D, and Urga G. (2015). They investigated a strategy based on price jump and indicated how price jumps carry a tradable signal for all currencies.

Risk management is a process by which firms identify measure, prioritize and mitigate the adverse effect of uncertainties Chapman C. and Ward S. (1997). Accordingly, risk management is a systematic approach to alleviate negative consequence of any specific phenomenon. The approach that defines risk from only down perspective could leads to risk aversion. Risk aversion can be an individualistic behavior but in business it is impossible to avoid all kinds of risk. Most risk taking activities associated with opportunities. Hence, companies need to be intelligent enough in managing their risks not only to grasp the benefit out of it but also to survive in business.

Risk management has strong inspirational effect on the major shareholders to invest more on the organization. This investment is a weapon for the company to provide better business opportunities which ultimately leads to long lasting competitive advantage. Ineffective risk management results in extra costs and costly lower tail outcomes on both the company and stockholders Andersen (2008).

Risk management is needed to reduce the risk level may arise in futures trading transactions. In accordance with the characteristics of investors who want the benefits of investing in the futures trading market, a strategy that can be used in investing is certainly needed Thomas Suselo (2007), Iversen, Jakob H *et al.* (2004), and Lisa Linawati Utomo (2000). The investment strategy used is indeed proven to increase investment returns or profits in the capital market Wiagustini (2009). So that the investment strategy and risk management is very necessary to get optimal profits in the futures trading market.

2. Literature Review

2.1 *Futures Trading*

Futures trading is a trading tool that can be utilized by the business world, including farmers and MSMEs (micro, small and m[26]um enterprises) to secure their interests from possible losses due to price fluctuations Purnomo *et al.* (2013). Futures trading takes place only in organized markets, other[24] known as the futures market. The futures market can be said to be a central market with established rules where buyers and sellers meet to trade futures and options on futures contracts. Misbahul Islam and Jayanta Chakraborti (2015).

2.2 Investment Strategy

There are three types of traders in trading according to periods Darmawan (2007), 1) Short term trader often referred to as a scalper, is a trader who opens a position and closes the position again to take profits quickly, because once the position shows a profit, even if it is small or only a few points, it will be closed immediately. A scalper does not care about the long-term trend direction. This type of trader ca n open and close positions in a matter of minutes and repeat. The advantage of scalping is that the risk it takes is relatively small because it only requires small price movements to gain profit. In addition, scalpers can usually make small profits consistently many times a day. The disadvantage is that often a scalper loses potential profits if it turns out that the trend continues to move in a positive direction. 2) Midterm trader Commonly referred to as daytrader, is a trader who observes prices in one day and makes transactions by opening and closing positions on the same day. A daytrader usually uses an hourly chart to analyze movements in one day. 3) Long term trader Commonly referred to as the Swing Trader, is a type of trader who observes long-term price movements, usually using a daily, weekly, or monthly chart. This type of trader aims to achieve the maximum possible profit by observing the long-term market direction. The advantage of this type of trader is the opportunity to gain maximum profit, by opening a position in the long term, for example opening a position and closing it one month later. If the position taken turns out to follow a long-term trend, then the profits can reach hundreds to thousands of points. This method is usually done well by experienced professional traders around the world.

There are three types of traders based on the techniques and analysis methods used. 1) Momentum traders perform observational analysis of price movements by observing transaction volume and trying to find the right momentum to enter the market. When the transaction volume has experienced a significant surge or by observing the market situation whether it has experienced an oversell or overbought situation. 2) Technical traders prioritize the analysis of price movements on chart observation to be able to specifically predict the direction of the price movement trend and when the trend ends so that they can determine where and when to open and close positions. That said, technical traders are obsessed with charts and indicators, because these are the main tools to use in analyzing. 3). Fundamental traders perform analysis by focusing their main attention on the latest market news and information

developments and drawing conclusions based on the information they receive.

2.3 Risk Management

Traditionally risk management had two broad concepts. Risk management is the management of adverse effect of risk rather than the opportunities associated with it. The other view is independent management of risks by classifying risk in to different silos Lam, J. (2001) and Davenport, E.W., and Bradley, L.M. (2001).

Masyhud Ali (2006) argues that risk for the business world generally come from the presence of uncertainties which cause profitability to be depressed or even cause losses. Besides, Masyhud Ali (2006) also argues that risk management is an ongoing process to reduce the bad effects of risk. In many cases of business activities, risk management can be in the form of actions to sacrifice certain resources currently controlled. This is done for the sake of obtaining returns in the future, even though it is still covered with uncertainty. According to Widoatmodjo *et al.* (2007) Risk management that can be used in futures trading are cut loss, switching, locking, and averaging technical analysis.

3. Research Methods

The design of this study used a quantitative design with a cross-sectional survey design Sugiyono (2018). A study to determine the dynamics of the correlation between risk factors and effects, by way of approach, observation or data collection at a time (point time approach). This means that each research subject is only observed once and the subject variable is measured at the time of examination.

According to Sujarweni V. W., and Endrayanto P. (2012), the appropriate sample size in the study is between 30 and 500. From the 582 investors at PT Monex Investindo Futures, the determination of the number of 98 respondents included in the criteria. Meanwhile, the Slovin method was used to determine the size of the sample with a defined margin of error of 10 prosen or 0.10. The sampling method was purposive sampling. A purposive sampling is a sampling technique with specified considerations or criteria Sujarweni V. W., and Endrayanto P. (2012). The criteria specified in the sample are respondents who have been active customers of trading on the futures exchange for at least six months.

3.1 Research Conceptual Framework

Based on the theory and research findings described above, a hypothesis can be developed in this study. The model in this study is determined as in Figure 1 below:

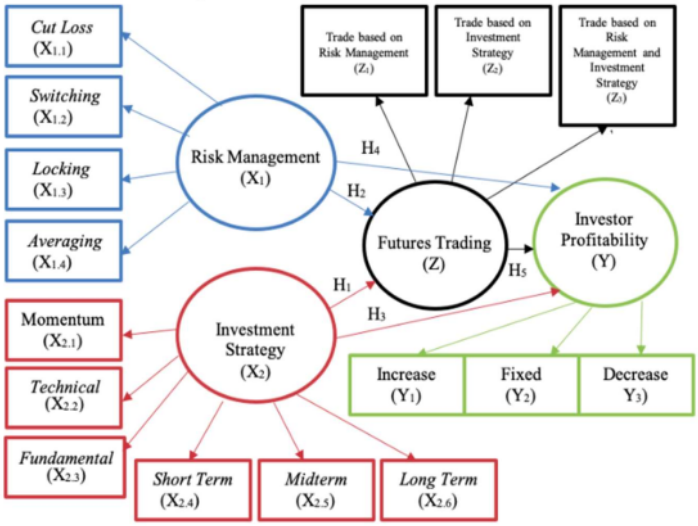

Fig. 1. Research Conceptual Framework

3.2 Hypothesis

- H1 : Risk management will have a positive and significant effect on futures trading;
- H2 : Investment strategy will have a positive and significant effect on futures trading;

- H_3 : Risk management will have a positive and significant effect on investor profitability;
- H_4 : Investment strategy will have a positive and significant effect on investor profitability;
- H5 : Futures trading will have a positive and significant effect on investor profitabilty.

3.3 Measurement of the Variables

The variables in this study were measured and interpreted from the constructs Risk management (X_1), Investment strategy (X_2), Futures trading (Z), and Investor profitability (Y). Each variable consists of several measurable indicators as shown in Table I.

TABEL I. IDENTIFICATION OF RESEARCH VARIABLES

Variables	Measurable Indicators
1. Risk management (X_1)	• Cut loss (X_{11}) • Switching (X_{12}) • Locking (X_{13}) • Averaging (X_{14})
2. Investment strategy (X_2)	• Momentum(X_{21}) • Technical (X_{22}) • Fundamental (X_{23}) • Short term (X_{24}) • Midterm (X_{25}) • Long term (X_{26})
3. Futures trading (Z)	• Trade based on RM (Z_1) • Trade based on IS (Z_2) • Trade based on RM and IS (Z_3)
4. Investor profitability (Y)	• Increase (Y_1) • Fixed (Y_2) • Decrease (Y_3)

4. Results and Discussions

4.1 Assessment of the Measurement

The measurement model shows how each indicator block relates to its latent variable. The test of validity and reliability that can be used to see the significance of each indicator making up its latent variables.

4.2 Test of Validity

To determine the validity of each indicator of a construct can be seen from the convergent validity and determinant validity. Convergent validity of a measurement model with reflective indicators can be seen from the correlation between indicator scores and the construct scores. Individual indicators are considered reliable in a research, if the loading scales range 0.50 to 0.6, and thus are still acceptable. Table II shows that all indicators in the Risk management, Investmenet strategy, Futures trading and Investor Profitabilty constructs were valid constructs because they have a loading factor of more than 0.50.

TABLE II. AVERAGE VARIANCE EXTRACTED (AVE)

Variables	AVE
Risk management (X_1)	0.574
Investment strategy (X_2)	0.560
Futures trading (Z)	0.547
Investor profitability (Y)	0.546

Test of Reliability

The construct reliability test was carried out with two criteria, namely composite reliability and Cronbach alpha from the indicator block. Constructs are said to be reliable if the composite reliability and Cronbach alpha values are greater than 0.70. Table II shows that the variables Risk management (X_1), Investment strategy (X_2), Futures trading (Z), and Investor profitability (Y) were reliable.

TABLE III. COMPOSITE RELIABILITY AND CRONHBACH ALPHA COEFFICIENTS

Variables	Composite Reliability	Cronhbach alpha
Risk management (X_1)	0.800	0.723
Investment strategy (X_2)	0.768	0.752
Futures trading (Z)	0.705	0.771
Investor profitability (Y)	0.707	0.783

4.4 Assessment of the Structural Model (Inner Model)

The assessment of the structural model was done by looking at the R-square value which is a goodness-fit model test. The model of the effect of Risk management on Investor profitability yielded a value of 0.088 (8.8 percent) and 0.346 (34.6 percent) was influenced by Investment strategy, as seen in Figure 2.

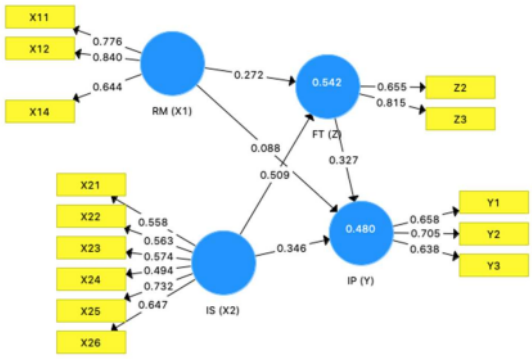

Fig. 2. Outer loading and path analysis

4.5 Hypothesis Testing

This research was conducted to examine the investment strategy and risk management on futures trading to increase the investor profitabilty. The significance of the effect of the construct can be seen from the results of statistical tests as shown in Table V:

TABLE V. PATH COEFFICIENTS (MEAN, STDEV, T-VALUES)

	original sample estimate	sample mean (m)	Standard deviation	T-Statistic
FT to IP	0.327	0.311	0.122	2.688
IS to FT	0.509	0.516	0.116	4.400
IS to IP	0.346	0.367	0.124	2.801
RM to FT	0.272	0.274	0.126	2.154
RM to IP	0.088	0.089	0.133	0.662

The relationship between Risk management and Futures trading was positive and significant. This can be seen from the t-statistics value of 2.154 (more than 1.96). Thus it can be concluded that there was a positive and significant effect of Risk management on Futures trading, and this Means that the H_1 hypothesis was accepted.

The relationship between Investment strategy and Futures trading was positive and significant. This can be seen from the t-statistics value of 4.400 (more than 1.96). Thus it can be concluded that there was a positive and significant effect of Investment strategy on Futures trading, and this means that the hypothesis H_2 was accepted.

The is no significant relationship between Risk management and Investor profitability. This can be seen from the t-statistics value of 0.662 (less than 1.96). Thus it can be concluded that there was no significant effect of Risk management on investor profitabilty and this means that the H_3 hypothesis was rejected.

The relationship between Investment strategy and Investor profitability was positive and significant. This can be seen from the t-statistics value of 2.801 (more than 1.96). Thus it can be concluded that there was a positive and significant effect of Investment strategy on investor profitability, and this Means that the H_4 hypothesis was

accepted.

The relationship between Futures trading and Investment profitabilty was positive and significant. This can be seen from the t-statistics value of 2.688 (more than 1.96). Thus it can be concluded that there was a positive and significant effect of Financial literacy on Financial attitude, and this Means that the H_5 hypothesis was accepted.

4.6 Comparative Testing of Variable

Investment strategy and risk management has a positive and significant effect on futures trading. Path analysis showed that the magnitude of the effect of Investment strategy was 4.400 and that of risk management was 2.154. This shows that the effect of Risk management is greater than the effect of Investment strategy. Relevant earlier research is done by Simsek A (2013), that Investment strategy has a significant positive effect on trading to financial assets. The higher the level of Investment strategy owned by the investors then the futures trading will also be better. Conversely, the lower level of Investment strategy, then the level of futures trading is also getting worse.

Investment strategy has a significant effect on investor profitability with the magnitude was 2.801 relevant to the research of Gehrig T. and Menkhoff L (2006), that trading strategy is the most important tools of getting better profits. While risk management has no effect significantly on investor profitability with the value was 0.662 as Osler C. (2012), showed that market driven rather than risk management to stimulate higher profitability.

Futures trading has an effect on investors' profitability with a value of 2,668. This is relevant to investment variations where transactions in futures trading contribute to increasing investor profitability associated with various types of derivative products with high market liquidity Chapman C. and Ward S. (1997).

5. Conclusions

On the basis of the discussion above, it can be concluded that: (1) there was a positive and significant effect of Risk management on futures trading, (2) there was a positive and significant influence of Investment strategy on Futures trading, (3) there was no significant effect of Risk management on Investor profitability, (4) there was a positive and significant effect of Investment strategy on Investor profitability, and (5) there was a positive and significant effect of Futures trading on Investor profitability.

The recommendation that can be given are (1) in reducing the high risk in futures trading, investors must use risk management and a choice of the best investment strategy; (2) In increasing the level of investor profitability, it is necessary to consider the use of appropriate investment strategy and still pay attention to risk management even though it does not have a significant impact. (3) some further research needs to follow up the findings of this research by adding other variables such as the level of investor education, gender and amount of funds invested.

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