THE PROFITABILITY OF TECHNICAL ANALYSIS TRADING STRATEGY ON CRUDE PALM OIL FUTURES (FCPO)

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Content

1. BACKGROUND

1. BACKGROUND

Predicting methods such as chart analysis, cycle analysis, and computerized technical trading systems were a variety of technical analysis (Park & Irwin, 2007)

Crude Palm Oil Futures (FCPO) which traded in futures exchange in Bursa Malaysia and operated by Bursa Malaysia Derivatives Berhad (BMD)

The global price benchmark for the crude palm oil market since October 1980

- One-unit FCPO per contract is equivalent to 25 metric tons of palm oil
- minimum price fluctuation RM1 per metric ton
- increased or decreased 1 point, it going to be RM25 a move

1. BACKGROUND

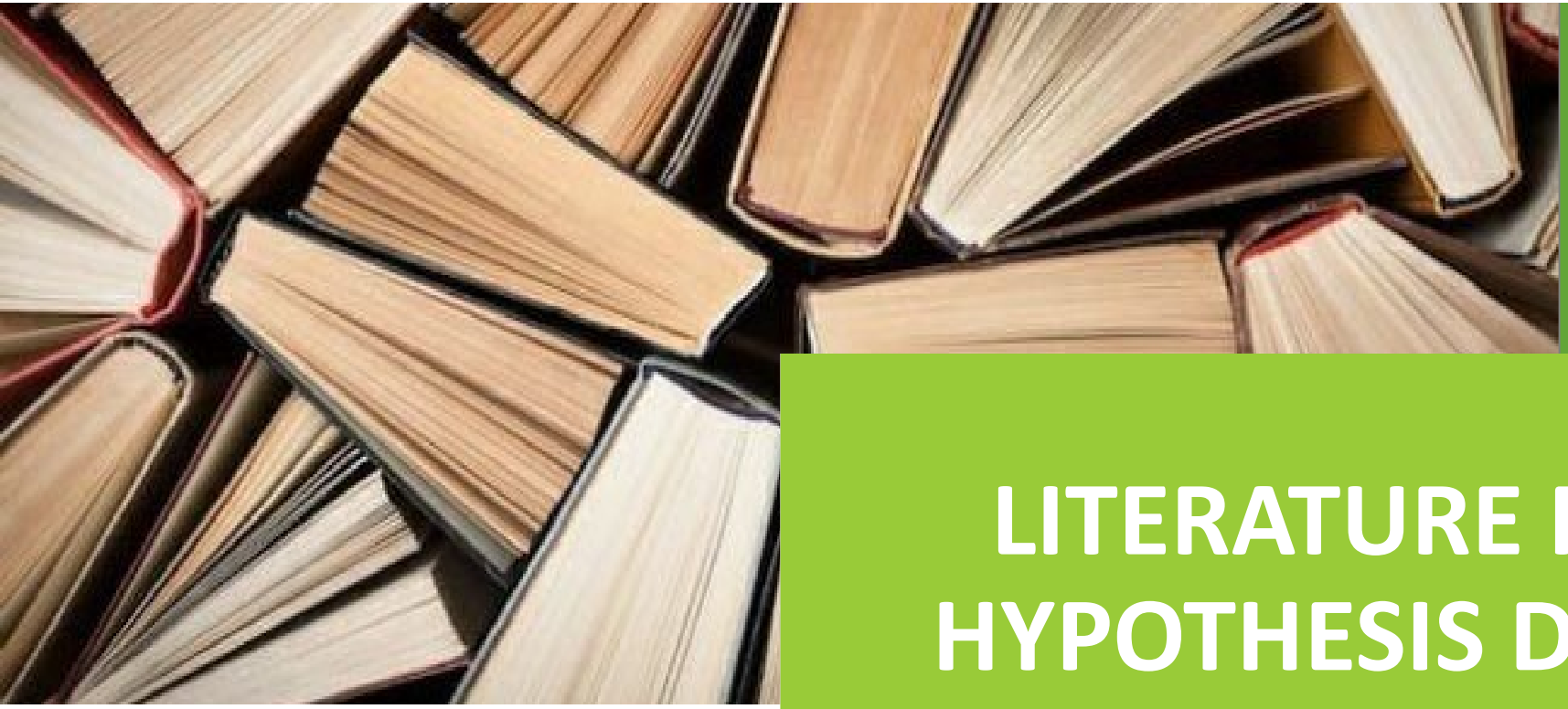
Objectives

This study general objectives are to investigate whether the FCPO is inefficient thus technical analysis is the best method to predict price movement. Therefore, the sentiment trader can added the technical analysis as one of the method to help them deciding when to enter and exit the market.

i. to predict the FCPO profitable price range by analysing the FCPO time series data

ii. to use stochastic oscillators, for its ability to generate higher returns by following its trading rule.

iii. to identify the effectiveness long or short trade in bringing higher return for trader.



2.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

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LITERATURE REVIEW

The technical analysis also can be a helpful tool to decide the market entry and exit and it's not surprising that most investors rely heavily on technical analysis (Wong et al., 2010).

There are about 75% of studies were surveyed by (Metghalchi et al., 2018) showing that technical analysis can predict the stock market movement thus bringing profit.

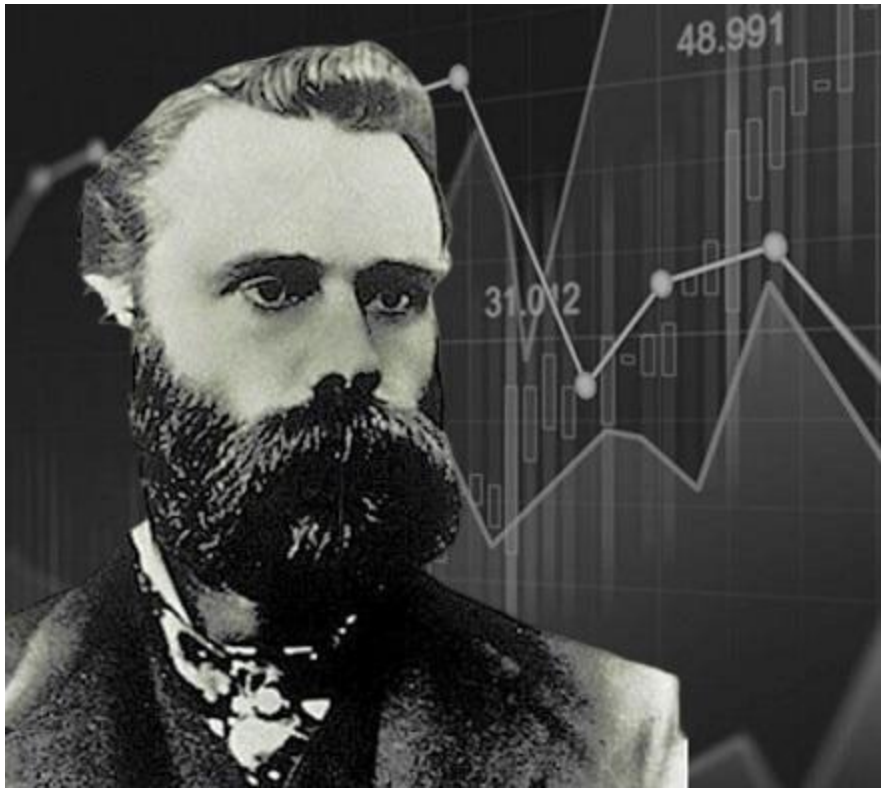
Even though the technical analysis is proven and successful in Indonesia, Malaysia, Taiwan, and Thailand, but a more developed market in Asia such as Hong Kong and Japan the technical analysis is less effective (Bessembinder & Chan, 1995) (Ratner & Leal, 1999)

The markets in emerging equity markets in Latin America and Asia are inefficient thus the stock market profitability is predictable after reducing the transaction cost (Wang & Sun, 2015).

Technical analysis performing its best when the market has asymmetric information as proven in the Chinese stock market because of the market slow adjustment to private information (Phooi M'ng, 2018).

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

LITERATURE REVIEW



The Dow Theory

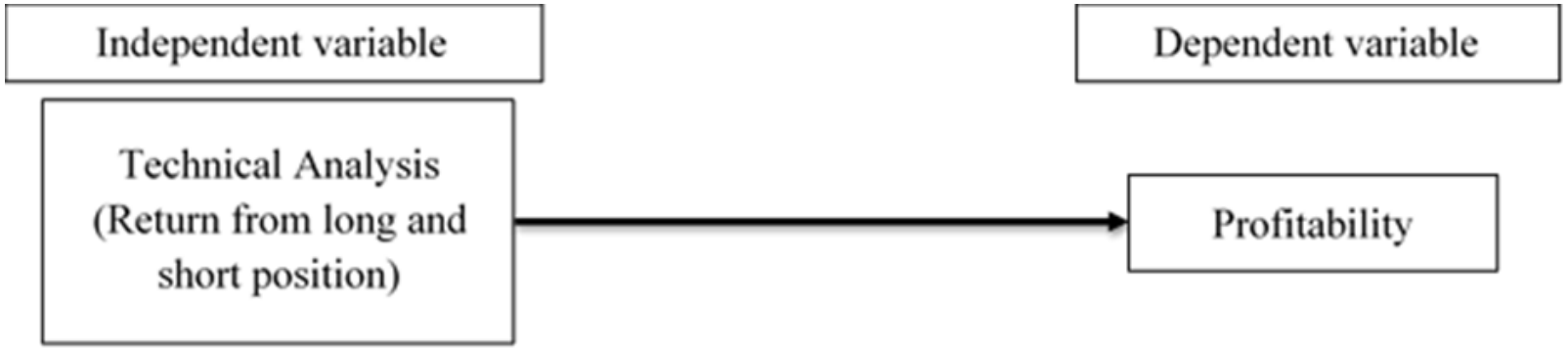
Charles H. Dow was the financial journalist and become the first editor of the Wall Street Journal.

The collection of his articles was compiled and developed after his death by several people and later was known as Dow Theory

His collection of writing credited for the earliest technique in the late 1800s to explain market movement at that time (Vanstone & Finnie, 2010)

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

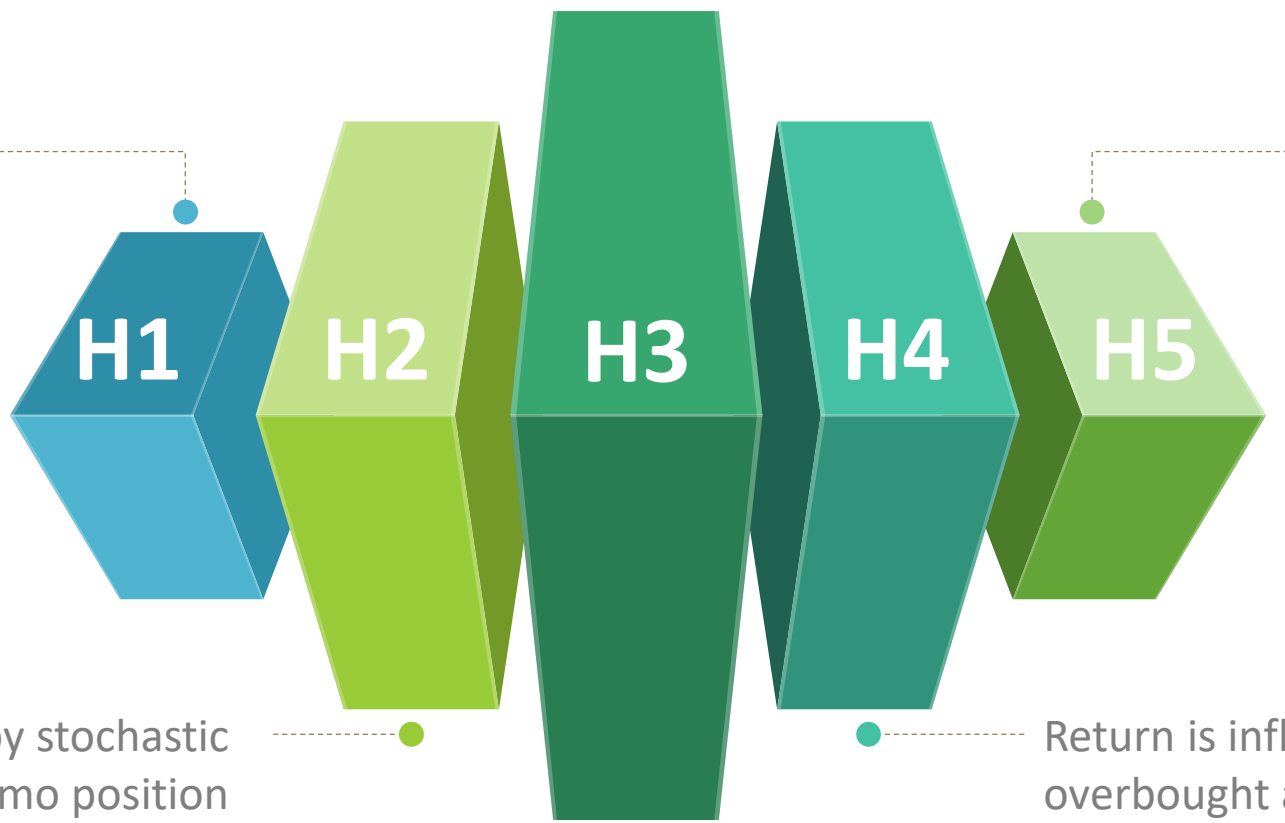
HYPOTHESIS DEVELOPMENT



A proposed conceptual framework

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

HYPOTHESIS DEVELOPMENT



Return is influenced by stochastics overbought and below kumo position

Return is influenced by stochastic oversold and below kumo position

There is no significant difference return between long and short positions

Return is influenced by stochastic oversold and above kumo position

Return is influenced by stochastics overbought and above kumo position

3.

RESEARCH METHODOLOGY

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THE TRADING RULE

Long position

- buying prices below 20% based on the stochastic oscillator
- selling price reaches 80% and above on the stochastic oscillator
- or hit stop lost price at 5 points lower than buying price. S

Short position

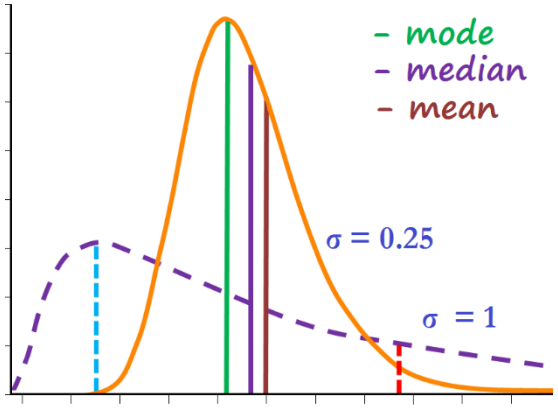
- selling price more than 80% on the stochastic oscillator
- buying when the price below 20% of the stochastic oscillator or it has reached 5 points higher than the selling price

All transaction was recorded whether it is below of above kumo of Ichimoku.

Source: Bursa Station

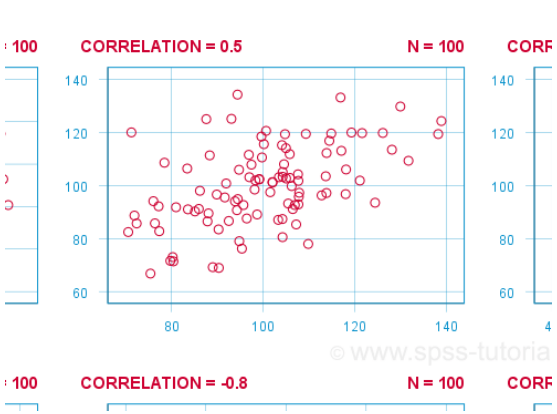
3. RESEARCH METHODOLOGY

Data Analysis Method



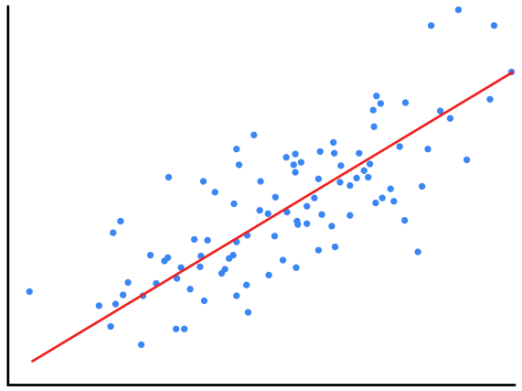
Descriptive Statistics

Measuring of variability by means of standard deviation (or variance), and the minimum and maximum values of the variables



Correlation Analysis

To determine the direction and strength of relationship between two variables whether it is positive, negative or no correlation.



Regression

To observe the relationship between two or more variables

$$t - test = \frac{\overline{x_1} - \overline{x_2}}{\sqrt{\frac{{s_1}^2}{n_1} + \frac{{s_2}^2}{n_2}}}$$

Two-sample t-test for equal means

The two sample t-test is used to determine if two population means are equal (Snedecor & Cochran, 1989)

4.

FINDINGS ANALYSIS

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Long Position

Table 1: Descriptive statistics of the long position

	% Return	Uptrend (above kumo)	Downtrend (below kumo)
Mean	0.003	2.45	95.98
Minimum	-0.0212	-625	-900
Maximum	0.1474	2650	8975
Count	143	143	143

Table 2: Correlation of long position

	% Return	Uptrend (above kumo)	Downtrend (below kumo)
% Return	1		
Uptrend (above cloud)	0.3598	1	
Downtrend (below cloud)	0.7773	-0.0007	1

4. FINDINGS ANALYSIS

Long Position

Table 3: Regression of long position

Regression Statistics	
Multiple R	0.8568
R Square	0.7341
Adjusted R Square	0.7303
Standard Error	0.0138
Observations	143

Table 4: Analysis of Variant (ANOVA) of the long position

	df	SS	MS	F	Significance F
Regression	2	0.0739	0.0369	193.2242	5.420E-41
Residual	140	0.0267	0.0001		
Total	142	0.1007			

4. FINDINGS ANALYSIS

Long Position

Table 5: Uptrend (above kumo) and downtrend (below kumo) significant for the long position

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.0008	0.0012	0.6863	0.4936
Uptrend (above cloud)	3.1904E-05	3.8580E-06	8.2696	9.3760E-14
Downtrend (below cloud)	1.9317E-05	1.0828E-06	17.8403	7.1759E-38

H1 and H2 are accepted

4. FINDINGS ANALYSIS

Short Position

Table 6: Descriptive statistics of the short position

	% Return	Uptrend (above kumo)	Downtrend (below kumo)
Mean	-0.0018	-112.6	22.13
Minimum	-0.0958	-2950	-250
Maximum	0.1200	3475	3700
Count	149	149	149

Table 7: Correlation of short position

	% Return	Uptrend (above kumo)	Downtrend (below kumo)
% Return	1		
Uptrend (above cloud)	0.6912	1	
Downtrend (below cloud)	0.6312	0.0103	1

4. FINDINGS ANALYSIS

Short Position

Table 8: Regression of short position

Regression Statistics	
Multiple R	0.9313
R Square	0.8673
Adjusted R Square	0.8655
Standard Error	0.0062
Observations	149

Table 9: Analysis of Variant (ANOVA) of the short position

	df	SS	MS	F	Significance F
Regression	2	0.0364	0.0182	477.0746	9.3712E-65
Residual	146	0.0056	3.8168E-05		
Total	148	0.042			

4. FINDINGS ANALYSIS

Short Position

Table 10: Uptrend (above kumo) and downtrend (below kumo) significant for the short position

	Coefficients	Standard Error	t Stat	P-value
Intercept	-0.0001	0.0005	-0.2593	0.7958
Uptrend (above cloud)	1.9962E-05	8.7890E-07	22.7128	8.9845E-50
Downtrend (below cloud)	2.4981E-05	1.2068E-06	20.6994	2.8387E-45

H3 and H4 are accepted

4. FINDINGS ANALYSIS

Comparing return between long position and short position

Two sample t-test

Since the alpha value was set at 0.05, then if the p-value is less than 0.05, it can be said that there is a statistically significant difference between the return short and return long. Hence, in this result, p = -1.7549 which is < 0.05, so the difference is significant. The null hypothesis is rejected when the P-value is less than the significance level. **Therefore, there is a significant difference return between long and short positions.**

H5 are rejected

5.

RESEARCH LIMITATION

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WEEKLY DATA

The weekly data is not wide enough and with the daily data, the test results could be more accurate.

FCPO

Lack of previous studies specifically on FCPO

TECHNICAL ANALYSIS

In future investigations, it might be possible to use a different technical analysis in determining the profitability of FCPO thus it will enhance the number of FCPO research studies on technical analysis.

6.

THE IMPORTANCE OF THE STUDY

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- **Understood Technical Analysis**
- to gain profitability in the FCPO market especially those who are traded weekly to gain extra return by using the technical analysis compared to their profit by using to B&H strategy

- **Benefited traders**
- Both local and foreign traders. i.e Chinese trader morning session, European trader afternoon session

- **Industry player**
- Planters, palm oil mills, producers, brokerage company

7.

RESEARCH FINDINGS AND IT'S IMPLICATION ON RELATED GOVERNMENT POLICY

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Based on the finding from this study, the FCPO market is predictable based on Dow Theory and significantly rejected Fama (1965) argument that the financial markets price movement is independent and not related to historical data to predict the future movement.

7. RESEARCH FINDINGS AND IT'S IMPLICATION ON RELATED GOVERNMENT POLICY

Stabilize price volatility

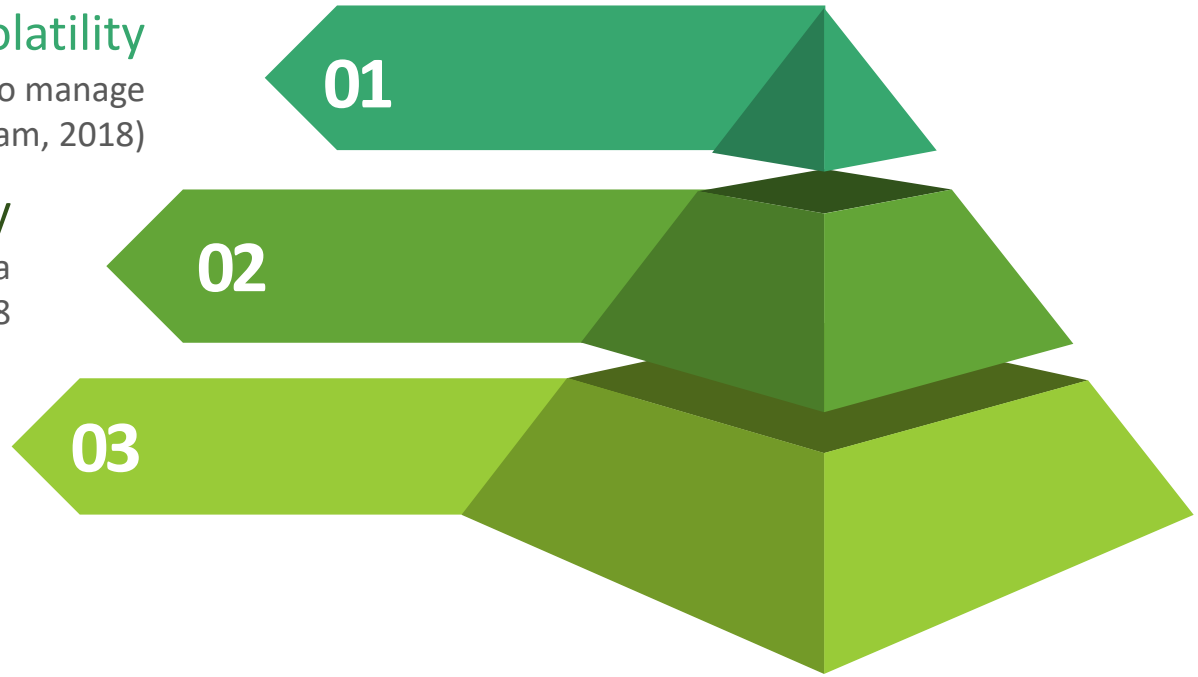
Malaysian Government also encourage palm oil players to hedge in FCPO contracts to manage the price risks as well as to stabilize price volatility (E. L. Wong & Amarthalingam, 2018)

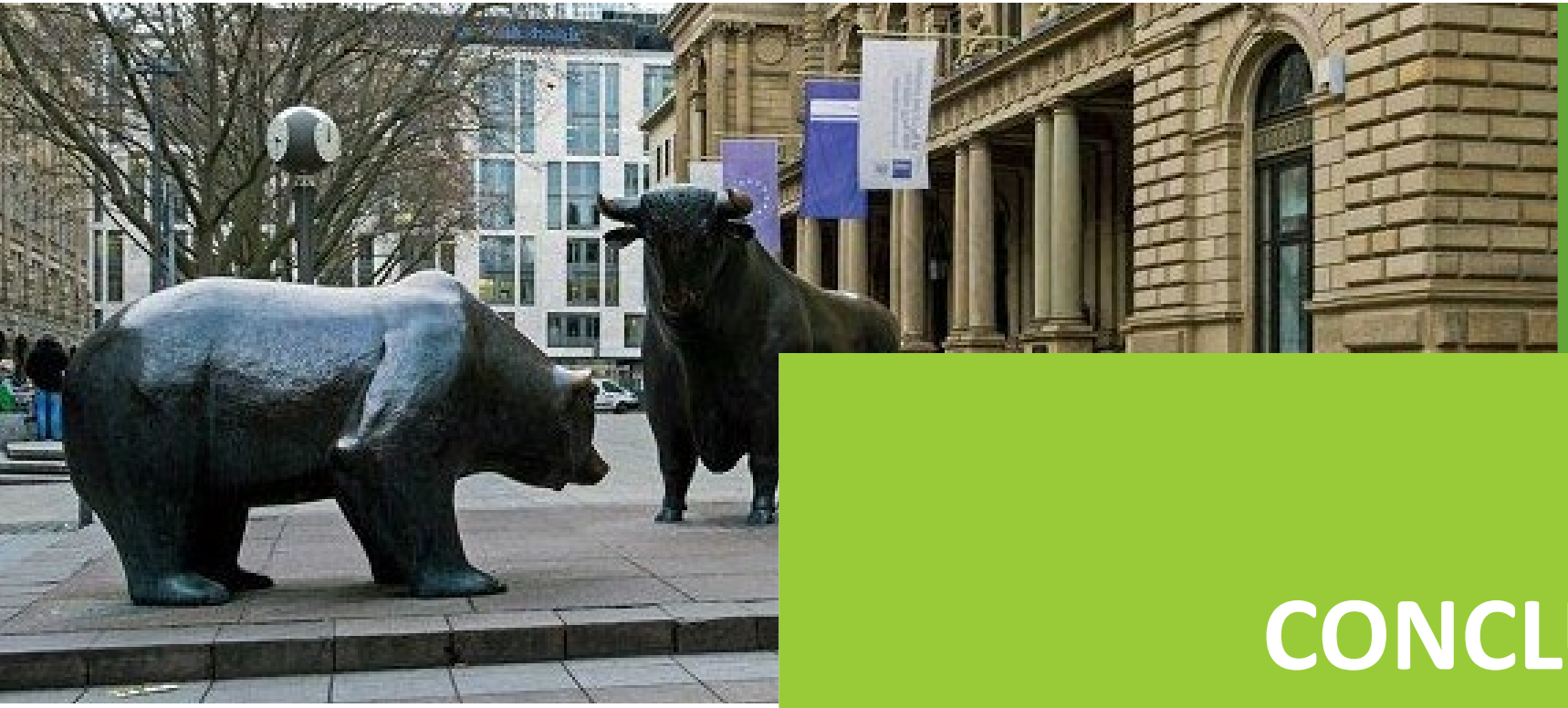
Growth engine for Malaysia's economy

Contributing estimated about at RM38 billion in Malaysia gross domestic product (GDP) in the year 2018

Alleviate poverty

Helps government effort to alleviate poverty especially in the rural area





8.

CONCLUSION

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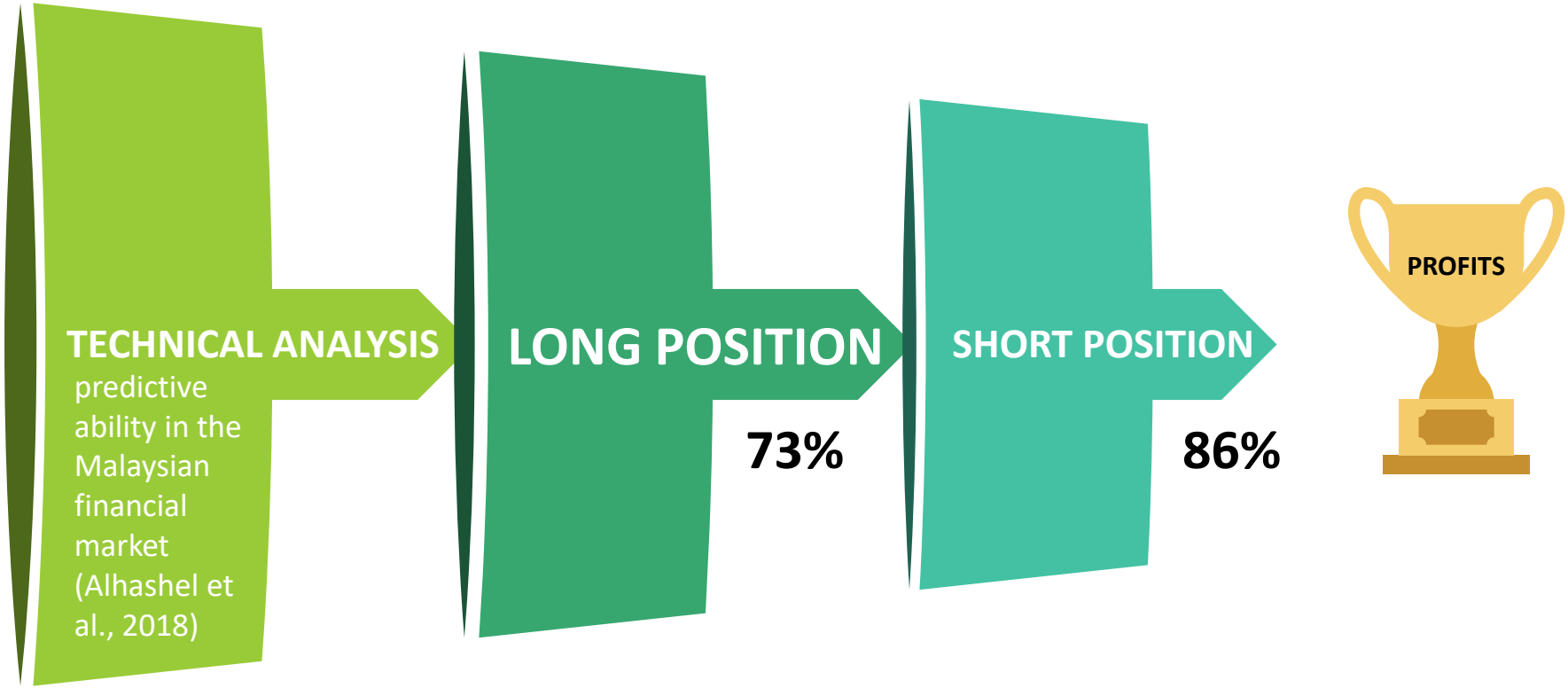

THANK YOU!