WORKING ROLE OF TECHNICAL ANALYSIS OF SLOWSTOCHASTIC INDICATOR AND COMMODITY CHANNEL INDEX IN AFFECTING INVESTMENT DECISION IN INDONESIA STOCK EXCHANGE

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Abstract

The research is undertaken for urgency investigation to understanding investment strategic through working role of technical analysis in order to obtain more optimal return in investment and decreasing investment risk aversion (capital loss). The novelty of this Research was analyzed statistically by performing regression analysis through Test Validity process, Reliability test, Outer Model and Inner Model must meet all the requirement Scientific merit, such as : meet the required CFA (Confirmatory Factor Analysis), meet the required AVE (Average Variance Extracted) value is greater than 0.50, fulfilling the composite reliability prerequisite of ≥0.6 or higher and ideally ≥0,7 to meet the required rule of thumb reliability estimation or higher, fulfilling the prerequisite convergence validity of the outer loading value between 0.5-0.6, fulfilling the preconditions of Cronbach's Alpha ≥0.7 and still tolerated when ≥0.6, while the result of inner statistic test of the relationship between variables (Path Analysis) t Statistics model significantly influence ≥1,96.

Keywords: Technical analysis, Slow Stochastic, Commodity Channel Index, investment decisions, and LQ45.

I. INTRODUCTION

An investment strategy that utilizes the role of technical analysis against stock portfolio performance since 1884 has been conducted in various world capital markets including Indonesia, although to this day there has been often a debate ranging from investors, analysts, market observers, brokers, and investment managers in order to obtain more optimal return in investment strategy using the role of technical analysis to meet unlimited needs and wants with limited resources, Budi (2013).

There are some figures who have studied the role of technical analysis performance such as Dow (1884), George C. lane (1950), Donald R. Lambert (1980), Danareksa Research Institute (2013), Said (2014), Wetzer 92011), Durschner (2012), Fong (2013), Andrew (2002) which stated that the role of technical analysis in investments can provide significant returns and can also be guidance. While Yamada (2004), Bucher (2002), Stanislaus et al (2016), Kempen (2016), Pocinci (2004), Gabbi (1999) and Debont et al (1985-87) suggested that technical analysis gave useless signals, has already been an outdated and useless analysis tool that often provide misleading signals.

Based on empirical evidence of this research, it is proposed to analyze the Exogenous Variable and Endogen Variable, through SEM (Structural Equation Model) with the Partial Least Square (PLS) test approach which considers the prerequisite of CFA coefficient (Confirmatory Factor Analysis) to obtain the hypothesis answers as follows: (H1) Stock performance based on technical analysis Slow Stochastic model directly influence to investment decision of investor. (H2) Stock performance based on technical analysis of Commodity Channel Index model directly influence to investment decision of investor. (H3) The stock performance based on technical analysis of Slow Stochastic model directly affects to LQ45 flagship stocks. (H4) Stock performance based on technical analysis of Commodity Channel Index model directly influence to LQ45 leading shares. (H5) Stock Performance based on technical analysis of Slow Stochastic model and Commodity Channel Index model directly influence to investor investment decision through leading stocks performance LQ45.

II. RESEARCH METHODS

2.1. Location and time research

This research was conducted in Bali, Indonesia from 2013 to 2019. The quantitative data obtained from several securities companies real time transaction in the Indonesian Stock Exchange with mix method technique sampling and the qualitative data obtained from market check, questionnaire, and the results of previous studies related downloaded from various journals over the internet.

2.2. Research Variables

The data of this research are independent variable (Exogenous Variable), X1= Stochastic Oscillator (Slow Stochastic-ISS) and X2 = Commodity Channel Index (CCI) with their indicators are signal estimation, time of entry and exit, money flow and level of losses assumption performance signal real. Meanwhile, Dependent variable (Endogenous Variable), Y_1 = performance of LQ45 flagship shares with the indicator is transaction volume, profit level, profit consistency, product success, return and development of investment. Y_2 = investor's investment decisions with the indicator is irrational information of investment and Trade efficiency.

2.3. Methods of data collection

The data required in this study, collected using the mix method of study documentation for all the type of quantitative data whereas for quantitative analysis is also required the qualitative data from various sources related to this research, good literature, and the results of related studies.

2.4. Method of data analysis

The method of data analysis estimation technique used from this Research is SEM (Structure Equation Model) with the Partial Least Square (PLS) approach and SPSS (Statistical Package for the social Sciences) through Test Validity process, Reliability test, Outer Model and Inner Model must meet the requirement of CFA (Confirmatory Factor Analysis) not less than 0.05 (Ghozali, 2014) to meet the required AVE (Average Variance Extracted) value is greater than 0.50 (Ghozali, 2012), fulfilling the composite reliability prerequisite of ≥0.6 (Ghozali, 2014) or higher and ideally ≥0,7 to meet the required the rule of thumb reliability estimate or higher, fulfilling the prerequisite convergence validity of the outer loading value between 0.5-0.6 (Ghozali, 2014), fulfilling the preconditions of Cronbach's Alpha ≥0.7 (Ghozali, 2014) and still tolerated when ≥0.6 according to Nunnally (1978) criterion, the result of inner statistic test of the relationship between variables (Path Analysis) t Statistics model significantly influence ≥1,96 (Abdul, 2016).

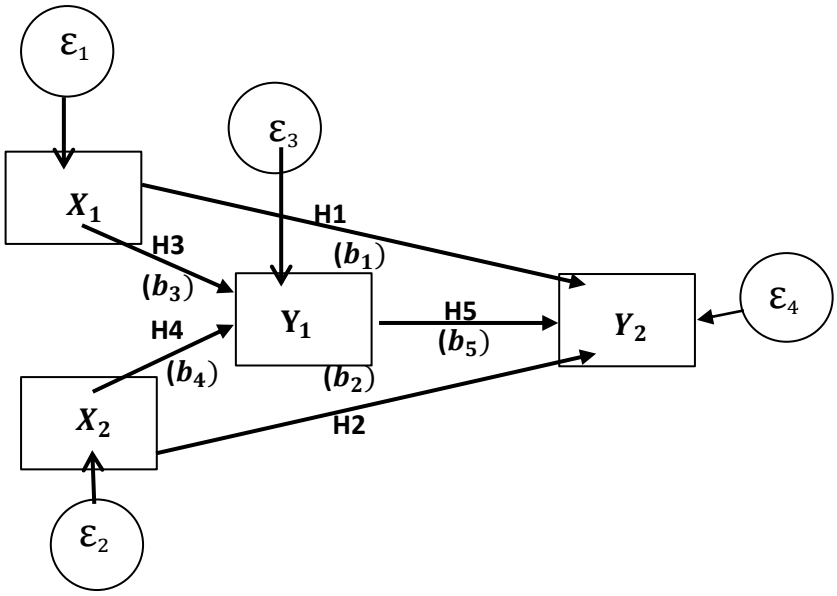

Figure 1. Design of Research Model
Source : Analysis process

$Y_1 = b_3X_1 + b_4X_2+\varepsilon$ ……..…… (1)
$Y_2=b_1X_1 + b_2X_2+ b_5Y_1 + \varepsilon$ ……. (2)

Specification:

a. Dependent variable (Endogenous Variable)
   Y_1 = performance of LQ45 flagship shares
   Y_2 = investors' investment decisions
b. Independent variable (Exogenous Variable)
   X1= Stochastic Oscillator (Slow Stochastic-ISS)
   X2 = Commodity Channel Index (CCI)
c. ε = Error term

With Method of data analysis term of condition as follows:
Endogenous Variable Y_1 influenced by Exogenous Variable X_1 and X_2
Endogenous Variable Y_2 influenced by X_1, X_2 and Y_1

III. RESULTS AND DISCUSSION

3.1. Descriptive Analysis

a. Validity Test

All the syntax output from bivariate analysis test showed CFA (Confirmatory Factor Analysis) value not less than 0.05, this means that all data is valid (Ghozali, 2014).

b. Reliability Test

All the syntax output reliability test from SPSS showed fulfilling the preconditions of Cronbach's Alpha ≥0.7 (Ghozali, 2014) and still tolerated when ≥0.6 according to Nunnally (1978) criterion.

3.2. **Inferential Analysis**

After passing the process of Test Validity, Test Reliability, Outer Model and Inner Model and meet all the prerequisites, it is discovered that syntax Q^2 has a Predictive Prevalence value is high enough. It is 0.7745 which means the amount of diversity of research data that can be explained by this research model is 77, 45%. While the remaining 22.55% influenced by other models outside this study. Based on these results it can be stated that this study has fulfilled the predictive prevalence requirement to be reliable and feasible to use because the value of CFA (Confimatory Factor Analysis) is not less than 0.05 (Ghozali, 2014) and Cronbach's Alpha ≥ 0.7 (Ghozali, 2014).

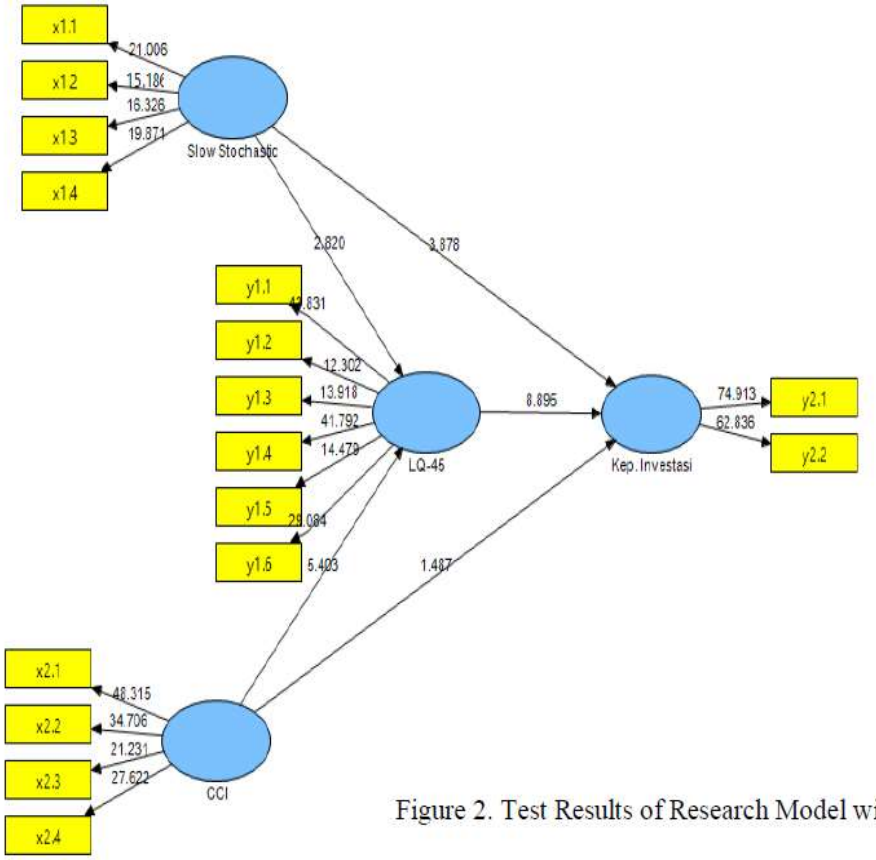

Figure 2. Test Results of Research Model with PLS

Based on calculations, the regression model estimation results as follows.

$Y_1=2{,}820X_1 +5{,}403X_2+\varepsilon$ …….. (3)

$Y_2 = 3{,}878\ X_1 + 1{,}487X_2+8{,}895Y_1 + \varepsilon$ ……..… (4)

The calculations analysis from regression model estimation result aims to answer the proposed research issues, namely: (1) how stock performance based on the technical analysis of Slow Stochastic model has a direct significant effect on investor's investment decision ?. (2) how the stock performance based on technical analysis of Commodity Channel Index model has direct significant effect

to investor's investment decision ?. (3) how the stock performance based on technical analysis of Slow Stochastic model directly affects the leading shares of LQ45 ?. (4) how stock performance based on technical analysis of Commodity Channel Index model directly influence to LQ45 leading shares ?. (5) how stock performance based on technical analysis of Slow Stochastic model and Commodity Channel Index model has significant direct effect to investors' investment decisions through performance of LQ45 flagship shares ?.

Tabel 1. Path Regression Analysis Result

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	t Statistics (|O/STERR|)
CCI -> investor's investment decision	0,109	0,112	0,073	0,073	**1,487**
CCI -> LQ-45	0,463	0,464	0,086	0,086	**5,403**
LQ-45 -> investor's investment decision	0,495	0,490	0,056	0,056	**8,895**
Slow Stochastic -> investor's investment decision	0,279	0,283	0,072	0,072	**3,878**
Slow Stochastic -> LQ-45	0,245	0,249	0,087	0,087	**2,820**

Source :PLS Analysis result

The significance of the regression coefficient estimation results as follows.

1. The value t statistics **3,878** positive from path analysis to examine the effect of independent variable (X_1) on the dependent variable (Y_2) at the level of significance α = 0,05. Means stock performance based on the technical analysis of Slow Stochastic model has a direct significant effect on investor's investment decision. The results of this analysis in accordance with the this study of the theory underlying about technical analysis Riccardo (2000), Fong (2013), Jordan Roy-Byrne (2017), Brown (2017), Suzuki (2018), Sherbini (2018), and Miyoko (2019).
2. The value t Statistics **1,487** positive from path analysis to examine the effect of independent variable ($\boldsymbol{X_2}$) on the dependent variable ($\boldsymbol{Y_2}$) at the level of significance α = 0,05. Means The stock performance based on technical analysis of Commodity Channel Index model has no direct significant effect to investor's investment decision, as based on the theory of Abdul (2016) suggests that t Statistics has significant effect when ≥ 1,96. The results of this analysis in accordance with this study of the theory underlying about technical analysis gave useless signals (Bucher, 2002), has already been an outdated and useless analysis tool that often provide misleading signals (Yamada, 2004), *trenless* of technical analysis signal (Kempen, 2016), and technical analysis often give an error signal (Debondt et al, 1985-87).
3. The value t Statistics **2,820** positive from path analysis to examine the effect of independent variable ($\boldsymbol{X_1}$) on the dependent variable ($\boldsymbol{Y_1}$) at the level of significance α = 0,05. Means the stock performance based on technical analysis of Slow Stochastic model directly affects the leading shares of LQ45. The results of this analysis in accordance with this study of the theory underlying about technical analysis often giving a "*clear signals*" (Prashant Shah, 2017), technical analysis as a tool for momentum investment strategy (Mohamed, 2018), and profit return *quantitative portfolio* using technical analysis (Alberto, 2019).
4. The value t Statistics **5,403** positive from path analysis to examine the effect of independent variable ($\boldsymbol{X_2}$) on the dependent variable ($\boldsymbol{Y_1}$) at the level of significance α = 0,05. This means Stock performance based on technical analysis of Commodity Channel Index model directly influence to LQ45 leading shares. The results of this analysis in accordance with the theory underlying this study about working role of technical analysis as profitable *"trading signals"* (Winter, 2018), and "*making a lot of money"* using signal of technical analysis (John, 2019).
5. The value t Statistics **8,895** positive from path analysis to examine the effect of independent variable ($\boldsymbol{X_1}$) and ($\boldsymbol{X_2}$) on the dependent variable ($\boldsymbol{Y_2}$) through ($\boldsymbol{Y_1}$) at the level of significance α = 0,05. This means Stock performance based on technical analysis of Slow Stochastic model and Commodity Channel Index model has significant direct effect to investor's investment decisions through performance of LQ45 flagship shares.
   Analysis of the coefficient of determination from inner model evaluation discovered that syntax R^2 has a strong model with a value of 0,50.

IV. LIMITATIONS OF RESEARCH

This study has limitations, including:

1) There is, as yet, no formal institution in Indonesia established specifically to study about working role of technical analysis through oscillator in effecting investment decision. As a result, this research had to determine for itself that factor about technical analysis which would be related to the market. Working role of technical analysis through oscillator in this research

are establish on the basis of previous studies related downloaded from various journals over the internet conducted out side Indonesia in countries where the capital are already rather more advance.

2) Inner Evaluation Test Model on this research only include R Square, Q Square and Path analysis (testing t Statistics) from Structural Equation Modeling (SEM) with the Partial Least Square (PLS) approach. The LQ 45 stocks taken for this study were selected based on a purposive sampling of a maximum of 10 shares based on the latest data in 2016, which had never been terminated until 2016 by Indonesia Stock Exchange (IDX).
3) Possibility of cybercrime, insider and outsider sabotage trading crime team, data does not available and data error during this research period. This is because Indonesia capital market regulations are not yet properly enforced.

V. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

The result of the research on the model hypotheses show that some of the empirical data in this research to answers proposed in this study are as follows:

1. The hypothesis about the direct significant effect between Stock performance based on the technical analysis of Slow Stochastic model and investor's investment decision.
2. The hypothesis about direct significant effect between the stock performance based on technical analysis of Commodity Channel Index model and investor's investment decision.
3. The hypothesis about the direct significant effect between the stock performance based on technical analysis of Slow Stochastic model and the leading shares of LQ45.
4. The hypothesis about the directly influence between Stock performance based on technical analysis of Commodity Channel Index model and LQ45 leading shares.
5. The hypothesis about the direct significant effect between Stock performance based on technical analysis of Slow Stochastic model and Commodity Channel Index model through performance of LQ45 flagship shares.

The finding based on calculations, the regression model estimation results $Y_1 = 2{,}820\ X_1 + 5{,}403X_2 + \varepsilon$ and $Y_2 = 3{,}878\ X_1 + 1{,}487X_2 + 8{,}895Y_1 + \varepsilon$ in this research have the following detail:

1. The majority working role of technical analysis Independent variable (Exogenous Variable) X1= Stochastic Oscillator (Slow Stochastic-ISS) with directly influence by $X_{1.1}$ signal estimation (21,006), $X_{1.2}$ time of entry and exit(15,186), $X_{1.3}$ money flow (16,326), and $X_{1.4}$ level of losses assumption performance signal real (19,871). Independent variable (Exogenous Variable) X2 = Commodity Channel Index (CCI) with directly influence by $X_{2.1}$ signal estimation (48,315), $X_{2.2}$ time of entry and exit(34,706), $X_{2.3}$ money flow (21,231), and $X_{2.4}$ level of losses assumption performance signal real (27,622).
2. In affecting investment decision, Dependent variable (Endogenous Variable) Y_1 = performance of LQ45 flagship shares directly influence by $Y_{1.1}$Transaction volume (43,831), $Y_{1.2}$profit level(12,302), $Y_{1.3}$profit consistency (13,918), $Y_{1.4}$product success (41,792), $Y_{1.5}$return (29,084) and $Y_{1.6}$development of investment (5,403). Dependent variable (Endogenous Variable) Y_2 = investor's investment decisions directly influence by $Y_{2.1}$irrational information of investment (74,913) and $Y_{2.2}$ Trade efficiency(62,836).

The conclusion of the findings of hypothesis answers proposed in this study are as follows:

1. Stock performance based on the technical analysis of Slow Stochastic model has a direct significant effect on investor's investment decision.
2. The stock performance based on technical analysis of Commodity Channel Index model has no direct significant effect to investor's investment decision, as based on the theory of Abdul (2016) suggests that t Statistics has significant effect when ≥ 1,96.
3. The stock performance based on technical analysis of Commodity Channel Index model directly affects the leading shares of LQ45.
4. Stock performance based on technical analysis of Commodity Channel Index model directly influence to LQ45 leading shares.
5. Stock performance based on technical analysis of Slow Stochastic model and Commodity Channel Index model has significant direct effect to investor's investment decisions through performance of LQ45 flagship shares.

5.2. Contribution of The Research

As expected in the proposed research issues, this research has made four important contributions, as follows : The first contribution is the model that can be used to predict working role of technical analysis of slow stochastic indicator and commodity channel index in affecting investment decision in Indonesia stock exchange. The model, which has been statistically tested (Figure 1. Design of Research Model). The second contribution is the finding to answer five proposed research issues. The third contribution is the findings of hypothesis answers proposed in this research, based on empirical evidence. The fourth contribution is the novelty of this

research based on calculations analysis from regression, such as : Validity test, Reliability test, Outer Model and Inner Model test (all already meet the requirement Scientific merit).

5.3. Suggestion for Future Research

From an academic perspective, there are several suggestion for subsequent research:

1. Given the result of the test of the model hypothesis two (H2) the stock performance based on technical analysis of Commodity Channel Index model has no direct significant effect to investor's investment decision because the syntax value t Statistics only **1,487** bellow 1,96 (Abdul, 2016). How ever, the finding in this research have not been fully completed, it requires careful future research and study for urgency investigate using appropriate methodologies and the latest technology.
2. The focus of this study is to see and to understanding investment strategic through working role of technical analysis in order to obtain more optimal return in investment. How ever, its important to examine a new frame work for future research about the phenomenon of predatory trading. There is still an opportunity, to see the influence of predatory trading from working role of technical analysis, because often that predatory trading leads to price over shooting and amplifies a large traders liquidation cost and default risk as working role oscillator moving of technical analysis. The consequently financial shock may spill over and trigger a large turn into economic crisis or meltdown can happen.
3. From empirical academic noted, it is necessary that future research and study to see the influence of how using technical analysis can help to decreasing investment risk aversion "*capital loss*" and increasing in the level of the capital gain "*profit*", besides the advantages of dividends.

VI. ACKNOWLEDGMENT

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Support of Analysis Result

Reliability X1

Case Processing Summary

		N	%
Cases	Valid	126	49.8
	Excluded[a]	127	50.2
	Total	253	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.933	.939	5

Inter-Item Correlation Matrix

	X1.1	X1.2	X1.3	X1.4	X1
X1.1	1.000	.852	.315	.468	.869
X1.2	.852	1.000	.176	.535	.842
X1.3	.315	.176	1.000	.303	.596
X1.4	.468	.535	.303	1.000	.742
X1	.869	.842	.596	.742	1.000

The covariance matrix is calculated and used in the analysis.

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
X1.1	14.2778	9.210	.817	.	.726
X1.2	14.2540	9.343	.781	.	.744
X1.3	14.0952	10.343	.469	.	.883
X1.4	14.0397	9.874	.661	.	.774
X1	9.0952	3.127	1.000	.	.758

Reliability X2

Case Processing Summary

		N	%
Cases	Valid	126	49.8
	Excluded[a]	127	50.2
	Total	253	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.818	.904	5

Inter-Item Correlation Matrix

	X2.1	X2.2	X2.3	X2.4	X2
X2.1	1.000	.823	.491	.609	.897
X2.2	.823	1.000	.437	.519	.850
X2.3	.491	.437	1.000	.396	.737
X2.4	.609	.519	.396	1.000	.763
X2	.897	.850	.737	.763	1.000

The covariance matrix is calculated and used in the analysis.

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
X2.1	14.5238	10.699	.858	.	.758
X2.2	14.6190	11.070	.800	.	.773
X2.3	14.4444	11.177	.642	.	.791
X2.4	14.3571	11.559	.693	.	.793
X2	9.2778	3.594	1.000	.	.823

Reliability Y1

Case Processing Summary

		N	%
Cases	Valid	126	49.8
	Excluded[a]	127	50.2
	Total	253	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.788	.895	7

Inter-Item Correlation Matrix

	Y1.1	Y1.2	Y1.3	Y1.4	Y1.5	Y1.6	Y1
Y1.1	1.000	.284	.315	.825	.379	.827	.806
Y1.2	.284	1.000	.482	.376	.520	.269	.652
Y1.3	.315	.482	1.000	.303	.719	.322	.707
Y1.4	.825	.376	.303	1.000	.359	.765	.806
Y1.5	.379	.520	.719	.359	1.000	.318	.736
Y1.6	.827	.269	.322	.765	.318	1.000	.779
Y1	.806	.652	.707	.806	.736	.779	1.000

The covariance matrix is calculated and used in the analysis.

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Y1.1	25.1746	25.121	.762	.	.751
Y1.2	25.0238	26.119	.582	.	.768
Y1.3	24.9683	25.439	.640	.	.760
Y1.4	25.2063	25.845	.761	.	.750
Y1.5	25.0317	25.583	.679	.	.759
Y1.6	25.1905	25.163	.729	.	.753
Y1	13.6905	7.511	1.000	.	.842

Reliability Y2

Case Processing Summary

		N	%
Cases	Valid	126	49.8
	Excluded[a]	127	50.2
	Total	253	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.900	.937	3

Inter-Item Correlation Matrix

	Y2.1	Y2.2	Y2
Y2.1	1.000	.668	.904
Y2.2	.668	1.000	.923
Y2	.904	.923	1.000

The covariance matrix is calculated and used in the analysis.

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Y2.1	6.3730	2.476	.833	.	.888
Y2.2	6.4603	2.282	.854	.	.850
Y2	4.2778	1.034	1.000	.	.799

Correlations

		x1.1	x1.2	x1.3	x1.4	Slow stochastic
x1.1	Pearson Correlation	1	.733**	.437*	.559**	.860**
	Sig. (2-tailed)		.000	.016	.001	.000
	N	30	30	30	30	30
x1.2	Pearson Correlation	.733**	1	.224	.743**	.875**
	Sig. (2-tailed)	.000		.234	.000	.000
	N	30	30	30	30	30
x1.3	Pearson Correlation	.437*	.224	1	.344	.580**
	Sig. (2-tailed)	.016	.234		.062	.001
	N	30	30	30	30	30
x1.4	Pearson Correlation	.559**	.743**	.344	1	.852**
	Sig. (2-tailed)	.001	.000	.062		.000
	N	30	30	30	30	30
Slow stochastic	Pearson Correlation	.860**	.875**	.580**	.852**	1
	Sig. (2-tailed)	.000	.000	.001	.000	
	N	30	30	30	30	30

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Correlations

		x2.1	x2.2	x2.3	x2.4	CCI
x2.1	Pearson Correlation	1	.610**	.556**	.527**	.838**
	Sig. (2-tailed)		.000	.001	.003	.000
	N	30	30	30	30	30
x2.2	Pearson Correlation	.610**	1	.576**	.498**	.836**
	Sig. (2-tailed)	.000		.001	.005	.000
	N	30	30	30	30	30
x2.3	Pearson Correlation	.556**	.576**	1	.235	.757**
	Sig. (2-tailed)	.001	.001		.212	.000
	N	30	30	30	30	30
x2.4	Pearson Correlation	.527**	.498**	.235	1	.730**
	Sig. (2-tailed)	.003	.005	.212		.000
	N	30	30	30	30	30
CCI	Pearson Correlation	.838**	.836**	.757**	.730**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	30	30	30	30	30

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

		y1.1	y1.2	y1.3	y1.4	y1.5	y1.6	LQ-45
y1.1	Pearson Correlation	1	.378*	.346	.943**	.407*	.672**	.820**
	Sig. (2-tailed)		.039	.061	.000	.026	.000	.000
	N	30	30	30	30	30	30	30
y1.2	Pearson Correlation	.378*	1	.467**	.429*	.353	.340	.657**
	Sig. (2-tailed)	.039		.009	.018	.056	.066	.000
	N	30	30	30	30	30	30	30
y1.3	Pearson Correlation	.346	.467**	1	.318	.614**	.459*	.736**
	Sig. (2-tailed)	.061	.009		.087	.000	.011	.000
	N	30	30	30	30	30	30	30
y1.4	Pearson Correlation	.943**	.429*	.318	1	.352	.607**	.796**
	Sig. (2-tailed)	.000	.018	.087		.057	.000	.000
	N	30	30	30	30	30	30	30
y1.5	Pearson Correlation	.407*	.353	.614**	.352	1	.384*	.698**
	Sig. (2-tailed)	.026	.056	.000	.057		.036	.000
	N	30	30	30	30	30	30	30
y1.6	Pearson Correlation	.672**	.340	.459*	.607**	.384*	1	.777**
	Sig. (2-tailed)	.000	.066	.011	.000	.036		.000
	N	30	30	30	30	30	30	30
LQ-45	Pearson Correlation	.820**	.657**	.736**	.796**	.698**	.777**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	30	30	30	30	30	30	30

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

		y2.1	y2.2	Kep. Investasi
y2.1	Pearson Correlation	1	.558**	.854**
	Sig. (2-tailed)		.001	.000
	N	30	30	30
y2.2	Pearson Correlation	.558**	1	.909**
	Sig. (2-tailed)	.001		.000
	N	30	30	30
Kep. Investasi	Pearson Correlation	.854**	.909**	1
	Sig. (2-tailed)	.000	.000	
	N	30	30	30

**. Correlation is significant at the 0.01 level (2-tailed).