Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

AENSI Journals

Journal of Applied Science and Agriculture

ISSN 1816-9112

Journal home page: www.aensiweb.com/jasa/index.html

The Effect of the Rate of Fluctuations on the Changes of Non – Oil Export

[1]ArezooTavakoli, [2]Amir habibvand, [3]Omid arabpourian

[1]*Master of International Business, Azad Tehran Jonub, Tehran, Iran.*
[2]*Industrial Management-Production Management, Master Institude of Training & Research Management and Planning. Tehran, Iran.*
[3]*Master of International Business, Azad Tehran Jonub. Tehran. Iran.*

ARTICLE INFO

Article history:
Received 22 February 2014
Received in revised form 16
15 April 2014
Accepted 25 April November 2014
Available online 5 May 2014

Keywords:
Commercial Payment Balance
Monetary Policy Market Regulation
Policy Macroeconomic

ABSTRACT

Fluctuations in exchange rate is one of effective, meanwhile ambiguous factors influencing on the export of agricultural products; and in an open economy, due to its correlation with other domestic and foreign variables, is considered to be a key variable. The purpose of current study is the role of fluctuations of exchange rate on change in chicken export. According to the mentioned goals in this research, that is investigating about the effects and giving practical suggestions and solutions in this regard, this research by terms of practical objectives, causal value and approaches of collecting data, is a descriptive – survey research. In this research, first we try to determine the effect of influential variables of fluctuations in exchange rate on non-oil exports, and then by using factorial analysis approach, we noted 4 influential factors of exchange rate fluctuations affecting on changes in non-oil export. These factors include: (monetary policy – market regulation policy – commercial payment balance – macroeconomic). After implementing factorial analysis using AMOS software, we developed structural model of influential factors of coherency rate fluctuations affecting on non-oil exports. Findings of this study reveal that all hypotheses based on the effect of exchange rate fluctuations on non-oil export are non-significant, and therefore are confirmed. The government, by using the nature of price interference policies about chicken, which not only affects on price control and market regulation, but also on the interference of the state in the market of manufacturing entities and offering state subsidies which is paid in form of differentials of the currency allocated for importation of importer entities, can contribute to growth and development in this industry.

To Cite This Article: ArezooTavakoli, Amir habibvand, omidarabpourian., The Effect of The Rate of Fluctuations on The Changes of Non – Oil Export. ***J. Appl. Sci. & Agric.,*** *9(4): 1761-1776, 2014*

INTRODUCTION

The literature on the issue is quite large. Both theoretical as well as empirical studies provide ambiguous effects of volatility on exports. An extensive review of both theoretical and empirical literature is well surveyed in Mackenzie, 1999. However in this section the main arguments are survived with an emphasis on key aspects pertaining to this study. Early empirical work, utilizing the OLS methodology, favored the negative hypothesis Clark, 1973 as well as an insignificant relationship between export quantity and volatility Hooper and Kohlagen, 1978. Hoper and Kohlhagen, 1978 investigated bilateral and multilateral trade among developed countries using the standard error of nominal exchange rate fluctuations as their volatility measure in the 1980's the empirical evidence continues to be mixed and often differ with samples and estimation methods. Therefore, there is no consistent pattern when the same method is applied to different countries .While many suggest that the exchange rate uncertainties does depress trade Thursby and Thursby, 1987 others provide evidence that exchange rate uncertainties affect international trade positively Mackenzie and Brooks,1997. In an attempt to explain these different ranges of results some researchers have turned to the measure of exchange rate volatility. Cushman, 1983 used the moving average of the real exchange rate as his volatility measure and found a negative relationship between volatility and exports. In his 1988 study, Cushman added the absolute difference between spot, forward and current rates as an alternative measure of volatility and found mixed effects of volatility on exports. Akahtar and Hilton, 1984 concluded that exchange rate uncertainty is detrimental to the international trade. De Grauwe, 1988 captured the ambiguity of the debate by modelling a producer who must decide between selling in the domestic or the foreign market. By providing some basic assumptions his model assumes that the only source affecting the exporter's behaviour is the local currency price of exports as well as his risk preferences. In his model exchange rate is measured as the percentage change of export quantity as a measure of volatility. Following De Grauwe's study Peree and Steinher, 1989 proposed the average absolute difference

Corresponding Author: ArezooTavakoli, Islamic azad university, Qeshm international branch, Department of Business Management, Qeshm, Iran.

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

between the previous forward rate and the current spot rate as better indictor of exchange rate volatility to bilateral exports. Even though new empirical statistical techniques are applied in the 1990's ambiguity of the estimated relationships continues to dominate the empirical literature. Several authors used the ARCH-GARCH method in order to model and measure exchange rate volatility Kroner and Lastrapes, 1993; Pozo, 1991. Others follow the VAR and VECM methodology allowing them to examine and model the properties of the samples such as unit roots and co integration arize, 1995. Assure and Peel, 1991 emphasized the importance of examining the characteristics of the data being used and examined for stationarity as well as seasonality. Chowdhury, 1993 investigated the impact of exchange rate trade volatility on trade flows for the G-7 countries utilizing an error correction model. His study found exchange rate volatility measure as an eight period moving sample standard deviation of the growth rate of the real exchange rate and found a significant negative impact. Despite all these developments the traditional measure of exchange rate still remains the moving average of the standard deviation. Recent empirical studies have confirmed that exchange rate volatility has a negative effect on exports, especially for developing economies Arize, 2000; Dognalar, 2002. However, in addition to the literature which suggests a negative Javed and Faroog, 2009 relationship there are studies that have suggested a positive Sheny and Youtang, 2012 or no effects at all Hondroyiannis, Swamy, Tavlas and Ulan, 2010. The literature however for the most part continues to overlook additional measures of volatility. Awokuse and Yuan, 2006 tried to apply three measures of volatility which included the variance of the spot exchange rate around the preferred trend to sectorial exports and revealed mixed effects.

Over all three conclusions can be drawn from the literature. First, some studies relay mainly on the OLS methodology which proves to be inadequate to cope and account with some of the statistical properties that the samples often may contain, such as unit roots and co integration. As a result, inadequate estimates might be obtained. Second, the empirical research has provided limited or no evidence of the effects of exchange rate volatility on exports for Croatia and Cyprus. Thirdly, for the most part the empirical research uses the standard deviation of the moving average of the logarithm of the exchange rate as a measure of exchange rate volatility.

Research design:

The scope of research subject: This research is in the area of international commercial and the fluctuation's role in currency rate on the exchanges of non – oil exports [poultry industry] will be the scope of research subject .with considering research aim which is the evaluating of effects and also giving suggestions and practical methods, therefore this research is Descriptive – survey of practical aim view, scientific value and the methods of gathering inputs.

Achieves:

In 151 person , the maximum statistics of respondents are men which is equivalent with 65.5 percent. In this part, the designing Hypothesis in research will be comprehend with using of structural equation model.

Hypothesis:

The policy of adjustment market has effect on changing in non – oil exports.

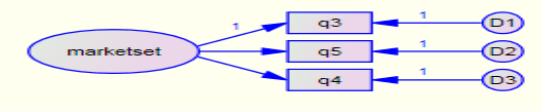
The money policy has effect on changing in non – oil exports.

The commercial payment balance has effect on changing in non – oil exports.

The macroeconomic has effect on changing in non – oil exports.

The measurement model which shows agent onus in observable variables is possible for every variable. The linkage power between agent [hidden variable] and observable variable is shown by agent onus. The agent onus is between 0 and 1. If it be less than 0/3, the linkage consider weak. If it be between 0/3 to 0/6 , the linkage consider normal and if it be elder than 0/6, the linkage is very desirable. In agent evaluating verification the attention on control model is important. The common control indicators in measuring models for researcher's variables is shown in below. In between control indicators, if the k2 rate to free degree be less than 2, so the model has suitable control. If the RMSEA indicator, be less than 0/05, it is desirable .whatever if some other indicators be near to 1, they will be desirable.

Model 1: The market regulation policy



The evaluating of normality inputs in the market regulation policy

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

Assessment of normality (Group number 1)

Variable	min	max	skew	c.r.	kurtosis	c.r.
q4	3.000	9.000	-.469	-2.353	-.395	-.991
q5	3.000	9.000	-.099	-.495	-.955	-2.397
q3	3.000	9.000	-.570	-2.859	-.496	-1.243
Multivariate					-.115	-.129

The absolute value of ratio of skew and elongation in the above table all are less than 2.58.and therefore 3 up variables are normal and multivariate coefficient in last row and it's skew amount which is less than 2.58. So the 3 up variables includes normal distribution with several variables.

Specific and non – specific models:

For being specific model it is necessary to include 2 condition which called " Rank condition " and "Order condition " .The first model contain rank condition because the freedom degree's model should be 0 or positive which in first model because of below outgoing is 0.

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	6
Number of distinct parameters to be estimated:	6
Degrees of freedom (6 - 6):	0

The number 6 means the amount of necessary elements matrix variance – covariance in observable variable. The number of free parameters in model which are descriptional is 6.

The freedom degree in number's difference is 0 and so for correcting model can't define other parameters in model. This model is saturational .The first model also includes order condition. Because accounting operations in matrix rate is possible. It means the estimate of parameters and also producing matrix variance – covariance in observable variables which is shown in below.

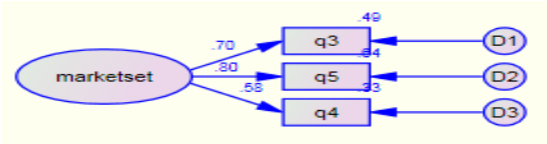


Fig. 1: The verified factor analysis of the variable in market regulation policy with standard coefficient

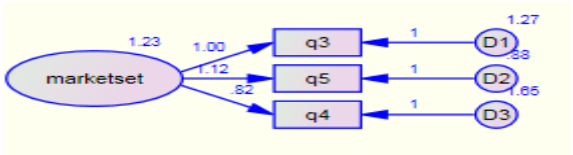


Fig. 2: The verified factor analysis of the variable in market regulation policy with non- standard coefficient Control Indicators

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	6	.000	0		
Saturated model	6	.000	0		
Independence model	3	98.198	3	.000	32.733

CMIN is 0 in first model and the up model is saturated model and because the up model can be in different ways so such models according to Rikef and Markulids (2002) can't evaluate.

The negligible control indicators, skew ratio and meaning level.

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
3	<---	Market set	1.000				
5	<---	Market set	1.122	.201	5.578	***	
4	<---	Market set	.816	.146	5.603	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
q3	<---	Market set	.702
q5	<---	Market set	.798
q4	<---	Market set	.576

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Markt set	1.229	.316	3.888	***	
D1	1.265	.244	5.178	***	
D2	.883	.267	3.309	***	
D3	1.647	.231	7.144	***	

Squared Multiple Correlations: (Group number 1 - Default model)

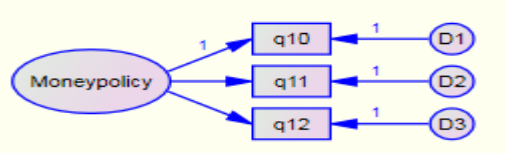
	Estimate
q4	.332
q5	.637
q3	.493

The negligible control indicators and skew ratio and meaning level is shown in up table which all of agent onus and estimating variances have meaning difference with 0.

[The *** symbol shows that P is less than 0/001].

Monetary policy

Model 2



The assessment of normality in monetary policy inputs

Assessment of normality (Group number 1)

Variable	min	max	skew	c. r.	kurtosis	c. r.
q12	1.000	9.000	-.717	-3.596	-.261	-.655
q11	1.000	9.000	-.812	-4.072	.254	.636
q10	3.000	9.000	-.544	-2.728	-.511	-1.281
Multivariate					1.294	1.451

The absolute value of ratio of skew and elongation in the above table all are less than 2.58.and therefore 3 up variables are normal and multivariate coefficient in last row and it's skew amount which is less than 2.58. so 3 up variables includes normal distribution with several variables.

Specific and non – specific models:

For being specific model it is necessary to include 2 condition which called " Rank condition " and "Order condition " .The second model contain rank condition because the freedom degree's model should be 0 or positive which in second model because of below outgoing is 0.

Computation of degrees of freedom (Default model)

Number of distinct sample moments:

Number of distinct parameters to be estimated:

Degrees of freedom (6 - 6):

The number 6 means the amount of necessary elements matrix variance – covariance in observable variable. The number of free parameters in model which are descriptional is 6.

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

The freedom degree in number's difference is 0 and so for correcting model can't define other parameters in model. This model becomes saturation .The second model also includes order condition. Because accounting operations in matrix rate is possible. It means the estimate of parameters and also producing matrix variance – covariance in observable variables which is shown in below.

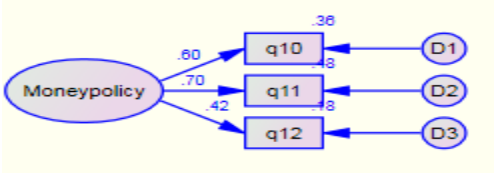


Fig. 3: The verified factor analysis of the variable in monetary policy with standard coefficient

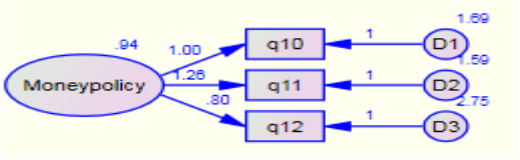


Fig. 4: The verified factor analysis of the variable in monetary policy with non- standard coefficient

Control indicators

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	6	.000	0		
Saturated model	6	.000	0		
Independence model	3	45.605	3	.000	15.202

CMIN is 0 in second model and the up model is saturated model and because the up model can be in different ways so such models according to Rikef and Markulids (2002) can't evaluate.

The negligible control indicators, skew ratio and meaning level.

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
q10	<---	Money policy	1.000				
q11	<---	Money policy	1.257	.409	3.072	.002	
q12	<---	Money policy	.801	.237	3.380	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
q10	<---	Money policy	.598
q11	<---	Money policy	.695
q12	<---	Money policy	.425

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Money policy	.942	.378	2.494	.013	
D1	1.690	.356	4.753	***	
D2	1.591	.504	3.156	.002	
D3	2.749	.370	7.423	***	

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
q12	.180
q11	.483
q10	.358

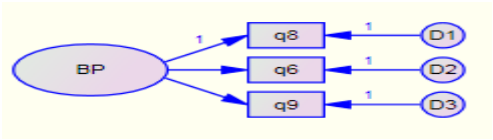
The negligible control indicators and skew ratio and meaning level is shown in up table which all of agent onus and estimating variances have meaning difference with 0.

[The *** symbol shows that P is less than 0/001].

Commercial payment balance

Model 3

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776



The assessment of normality in inputs of commercial payment balance

Assessment of normality (Group number 1)

Variable	min	max	skew	c.r.	kurtosis	c.r.
q9	1.000	9.000	-.551	-2.764	-.505	-1.267
q6	3.000	9.000	-.323	-1.618	-.738	-1.852
q8	1.000	9.000	-.870	-4.367	.487	1.222
Multivariate					.963	1.080

The absolute value of ratio of skew and elongation in the above table all are less than 2.58.and therefore 3 up variables are normal and multivariate coefficient in last row and it's skew amount which is less than 2.58. so 3 up variables includes normal distribution with several variables.

Specific and non – specific models:

For being specific model it is necessary to include 2 condition which called " Rank condition " and "Order condition " .The third model contain rank condition because the freedom degree's model should be 0 or positive which in second model because of below outgoing is 0.

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	6
Number of distinct parameters to be estimated:	6
Degrees of freedom (6 - 6):	0

The number 6 means the amount of necessary elements matrix variance – covariance in observable variable. The number of free parameters in model which are descriptional is 6 .

The freedom degree in number's difference is 0 and so for correcting model can't define other parameters in model. This model is saturational .The third model also includes order condition. Because accounting operations in matrix rate is possible. It means the estimate of parameters and also producing matrix variance – covariance in observable variables which is shown in below.

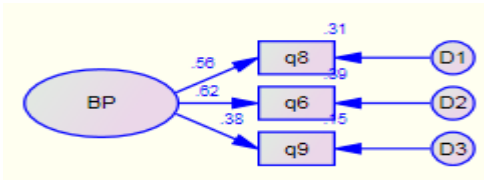


Fig. 5: The verified factor analysis of the variable in commercial payment balance with standard coefficient

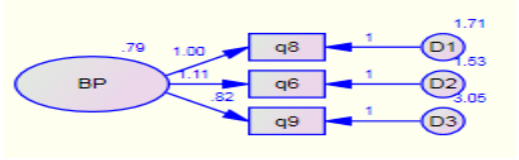


Fig. 6: The verified factor analysis of the variable in commercial payment balance with non- standard coefficient

Control Indicators

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	6	.000	0		
Saturated model	6	.000	0		
Independence model	3	31.565	3	.000	10.522

CMIN is 0 in third model and the up model is saturated model and because the up model can be in different ways so such models according to Rikef and Markulids (2002) can't evaluate.

The negligible control indicators, skew ratio and meaning level.

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
q8	<---	BP	1.000				
q6	<---	BP	1.114	.459	2.426	.015	
q9	<---	BP	.819	.303	2.705	.007	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
q8	<---	BP	.561
q6	<---	BP	.623
q9	<---	BP	.384

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
BP	.786	.384	2.045	.041	
D1	1.712	.378	4.534	***	
D2	1.533	.437	3.512	***	
D3	3.049	.413	7.385	***	

Squared Multiple Correlations: (Group number 1 - Default model)

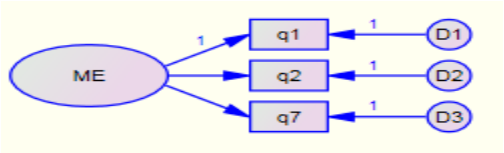
	Estimate
q9	.147
q6	.389
q8	.314

The negligible control indicators and skew ratio and meaning level is shown in up table which all of agent onus and estimating variances have meaning difference with 0.

[The *** symbol shows that P is less than 0/001].

Macroeconomic

Fourth model



The assessment of normality in macroeconomic inputs

Assessment of normality (Group number 1)

Variable	Min	max	skew	c.r.	kurtosis	c.r.
q7	3.000	9.000	-.575	-2.887	-.665	-1.667
q2	3.000	9.000	-.507	-2.543	-.543	-1.362
q1	1.000	9.000	-.803	-4.030	.199	.498
Multivariate					.979	1.099

The absolute value of ratio of skew and elongation in the above table all are less than 2.58.and therefore 3 up variables are normal and multivariate coefficient in last row and it's skew amount which is less than 2.58. so 3 up variables includes normal distribution with several variables.

Specific and non – specific models:

For being specific model it is necessary to include 2 condition which called " Rank condition " and "Order condition " .The fourth model contain rank condition because the freedom degree's model should be 0 or positive which in second model because of below outgoing is 0.

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	6
Number of distinct parameters to be estimated:	6
Degrees of freedom (6 - 6):	0

The number 6 means the amount of necessary elements matrix variance – covariance in observable variable. The number of free parameters in model which are descriptional is 6.

The freedom degree in number's difference is 0 and so for correcting model can't define other parameters in model. This model is saturational .The fourth model also includes order condition. Because accounting

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

operations in matrix rate is possible. It means the estimate of parameters and also producing matrix variance – covariance in observable variables which is shown in below.

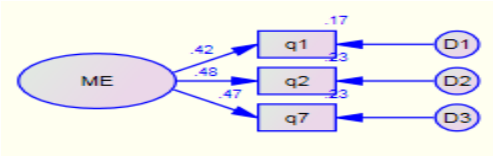


Fig. 7: The verified factor analysis of the variable in macroeconomic with standard coefficient

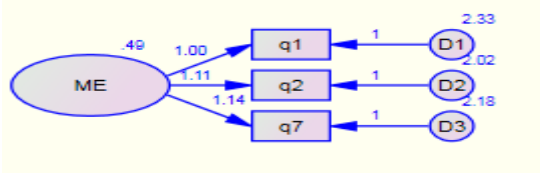


Fig. 8: The verified factor analysis of the variable in macroeconomic with non- standard coefficient

Control Indicators
CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	6	.000	0		
Saturated model	6	.000	0		
Independence model	3	17.931	3	.000	5.977

CMIN is 0 in fourth model and the up model is saturated model and because the up model can be in different ways so such models according to Rikef and Markulids (2002) can't evaluate.

The negligible control indicators, skew ratio and meaning level.

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
q1	<---	ME	1.000				
q2	<---	ME	1.106	.542	2.041	.041	
q7	<---	ME	1.136	.555	2.048	.041	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
q1	<---	ME	.417
q2	<---	ME	.478
q7	<---	ME	.475

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ME	.491	.323	1.520	.128	
D1	2.333	.378	6.165	***	
D2	2.024	.400	5.057	***	

D3	2.179	.425	5.122	***

Squared Multiple Correlations: (Group number 1 - Default model)

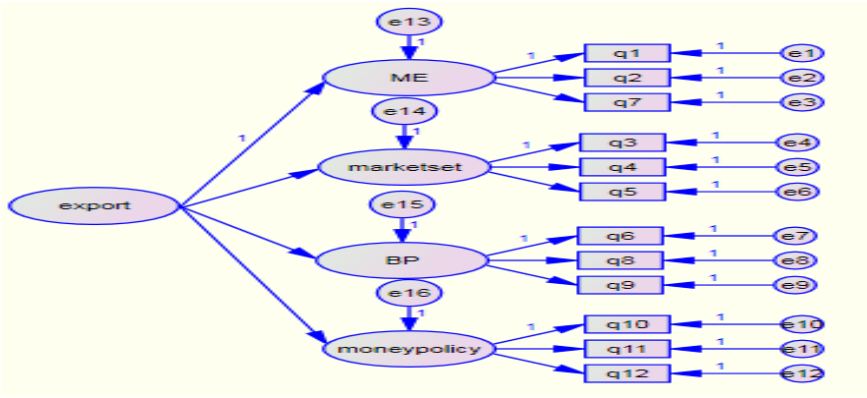
	Estimate
q7	.225
q2	.229
q1	.174

The negligible control indicators and skew ratio and meaning level is shown in up table which all of agent onus and estimating variances have meaning difference with 0.

[The *** symbol shows that P is less than 0/001].

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

Structural research model



Model 5:

The assessment of input research

Assessment of normality (Group number 1)

Variable	min	max	skew	c.r.	kurtosis	c.r.
q12	1.000	9.000	-.717	-3.596	-.261	-.655
q11	1.000	9.000	-.812	-4.072	.254	.636
q10	3.000	9.000	-.544	-2.728	-.511	-1.281
q9	1.000	9.000	-.551	-2.764	-.505	-1.267
q8	1.000	9.000	-.870	-4.367	.487	1.222
q6	3.000	9.000	-.323	-1.618	-.738	-1.852
q5	3.000	9.000	-.099	-.495	-.955	-2.397
q4	3.000	9.000	-.469	-2.353	-.395	-.991
q3	3.000	9.000	-.570	-2.859	-.496	-1.243
q7	3.000	9.000	-.575	-2.887	-.665	-1.667
q2	3.000	9.000	-.507	-2.543	-.543	-1.362
q1	1.000	9.000	-.803	-4.030	.199	.498
Multivariate					13.872	4.650

With considering the amount of skew ratio in both rows, skew and elongation ,can say the amount of research variables aren't of normal distribution and their absolute value of skew ratio are more than 2.58.with attention to multivariate coefficient (13.872) and skew ratio (4.650) which is upper than 2.58 ,can say these variables haven't normal distribution of one variable and also several variables. Mahalanobis squared for assessment of inputs is shown in below chart.

Observations farthest from the centroid (Mahalanobis distance) (Group number 1)

Observation number	Mahalanobis d-squared	p1	p2
33	46.105	.000	.001
130	35.969	.000	.001
143	33.095	.001	.000
129	24.850	.016	.209
15	24.058	.020	.186
81	23.573	.023	.141
62	23.107	.027	.113
48	22.802	.029	.079
79	22.022	.037	.113
69	20.106	.065	.524
5	19.307	.081	.692
44	19.158	.085	.635
60	19.123	.086	.533
64	18.987	.089	.475
121	18.458	.102	.590
63	18.440	.103	.491
88	18.320	.106	.440
34	17.410	.135	.747
19	17.240	.141	.735

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

Observation number	Mahalanobis d-squared	p1	p2
20	16.975	.151	.765
151	16.879	.154	.730
134	16.667	.163	.745
137	16.491	.170	.748
13	16.324	.177	.749
14	15.988	.192	.821
131	15.889	.196	.801
57	15.886	.197	.738
139	15.819	.200	.700
150	15.805	.200	.632
1	15.684	.206	.622
117	15.361	.222	.722
59	15.268	.227	.702
46	15.073	.237	.736
37	14.842	.250	.787
16	14.757	.255	.771
54	14.723	.257	.727
61	14.646	.261	.705
42	14.552	.267	.693
26	14.223	.287	.805
104	14.113	.294	.805
144	14.104	.294	.755
31	14.030	.299	.737
85	14.009	.300	.689
133	13.991	.301	.634
65	13.958	.303	.587
18	13.861	.310	.583
23	13.798	.314	.558
3	13.737	.318	.530
71	13.647	.324	.523
105	13.476	.335	.575
116	13.265	.350	.654
55	13.256	.351	.595
35	13.220	.353	.554
58	13.089	.363	.581
92	13.065	.364	.532
17	13.063	.365	.466
125	12.918	.375	.506
56	12.513	.405	.730
106	12.498	.407	.682
107	12.433	.412	.668
82	12.420	.413	.615
10	12.359	.417	.597
94	12.340	.419	.547
30	12.336	.419	.484
119	12.298	.422	.448
149	12.280	.423	.397
114	12.080	.439	.487
84	12.054	.441	.443
87	11.987	.447	.431
120	11.847	.458	.477
112	11.788	.463	.460
118	11.770	.464	.410
27	11.765	.465	.351
21	11.725	.468	.322
123	11.716	.469	.272
8	11.679	.472	.244
115	11.511	.486	.304
136	11.421	.493	.311
127	11.371	.497	.291
132	11.222	.510	.343
52	11.163	.515	.329
50	11.127	.518	.297
145	10.721	.553	.566

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

Observation number	Mahalanobis d-squared	p1	p2
93	10.587	.565	.614
126	10.539	.569	.591
66	10.349	.585	.685
91	10.194	.599	.744
140	10.031	.613	.804
147	9.915	.623	.828
124	9.912	.624	.785
111	9.856	.629	.772
70	9.719	.641	.813
49	9.563	.654	.859
12	9.359	.672	.915
78	9.032	.700	.975
6	9.013	.702	.967
43	8.775	.722	.987
25	8.765	.723	.981
53	8.755	.724	.973
141	8.720	.727	.967

The maximum and minimum distance of numeral central in three variables reports in range of 46 and 8 and because from top to down, the rows after that haven't notable distance, so there is one remote input which causes the variable not be normal. Whatever for being variable normality, we omit the 143 , 130 ,33 rows and again it implement and so the distribution of inputs became normal in below phase.

Assessment of normality (Group number 1)

Variable	min	max	skew	C .r.	kurtosis	C .r.
q12	3.000	9.000	-.561	-2.787	-.816	-2.026
q11	1.000	9.000	-.794	-3.942	.297	.739
q10	3.000	9.000	-.527	-2.617	-.564	-1.400
q9	3.000	9.000	-.423	-2.100	-.882	-2.191
q8	5.000	9.000	-.542	-2.691	-1.032	-2.563
q6	3.000	9.000	-.330	-1.637	-.719	-1.787
q5	3.000	9.000	-.124	-.617	-.936	-2.326
q4	3.000	9.000	-.427	-2.119	-.510	-1.266
q3	3.000	9.000	-.528	-2.625	-.584	-1.451
q7	3.000	9.000	-.497	-2.469	-.856	-2.125
q2	3.000	9.000	-.490	-2.435	-.559	-1.389
q1	3.000	9.000	-.595	-2.955	-.717	-1.781
Multivariate					1.194	.396

The absolute value of skew ratio and elongation in the above table all are less than 2.58 and therefore 12 up variables are normal and multivariate coefficient in last row [1/194] and it's skew amount (o.396) which is less than 2.58. So the up variable includes normal distribution with several variables.

Specific and non – specific models:

For being specific model it is necessary to include 2 condition which called " Rank condition " and "Order condition ". The structural model includes Rank condition because the free degree should be 0 or positive which in structural model, because of below outgoing is 50.

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	78
Number of distinct parameters to be estimated:	28
Degrees of freedom (78 - 28):	50

The 78 number means the number of necessary element in matrix, variance – covariance.

The 28 number means the free definable parameters in model.

The free difference degree is the numbers which for correcting model, can define 50 other parameter in free parameter phase to model. Structural model includes rank condition. Because accounting operations in matrix rate is possible. It means the estimate of parameters and also producing matrix variance – covariance in observable variables which is shown in below.

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

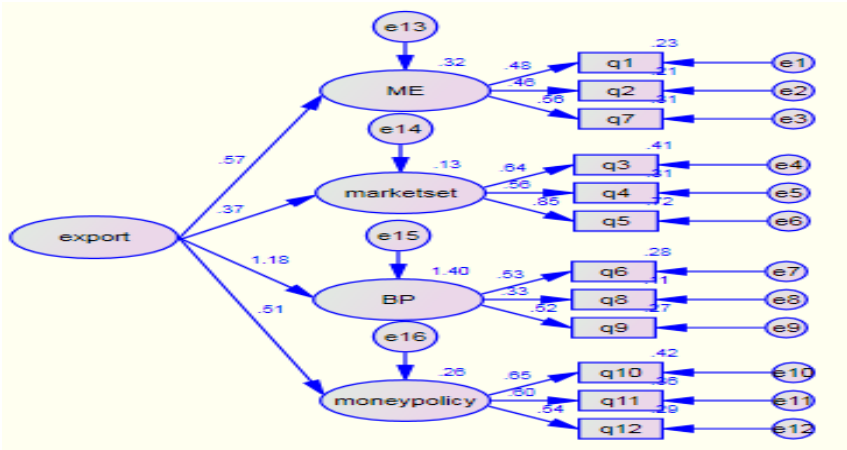


Fig. 9: structural model research with standard coefficient

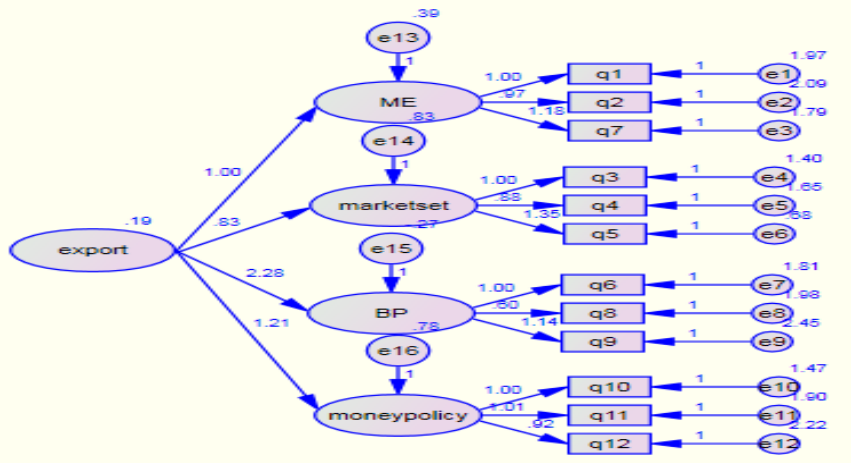


Fig. 10: structural model research with non-standard coefficient

Control indicators and correcting model

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	28	71.166	50	.026	1.423
Saturated model	78	.000	0		
Independence model	12	299.424	66	.000	4.537

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.762	.686	.915	.880	.909
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.758	.578	.689
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.054	.019	.080	.393
Independence model	.155	.138	.173	.000

In structural model, CMIN / DF is 1.42 and so it is suitable. The comparative indicators are upper than 90 percent and in some other are down and unsuitable. In other phase , the economic indicators, are upper than 50 percent and so it is suitable. The RMSEA indicator is upper than 5 percent and so it is unsuitable. Therefore

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

there is need for a little correcting in structural model. The offering Amus indicators for correcting are shown in below.

Covariances : (Group number 1 - Default model)

			M.I.	Par Change
e7	<-->	e8	6.665	.443
e5	<-->	e7	5.533	.380
e4	<-->	export	4.802	-.119
e4	<-->	e15	5.286	-.260
e4	<-->	e7	4.057	-.308
e1	<-->	e16	4.661	.115
e1	<-->	e10	5.305	.399

Regression Weights: (Group number 1 - Default model)

			M.I.	Par Change
q11	<---	q5	4.522	-.173
q10	<---	q1	5.438	.169
q8	<---	q6	4.182	.154
q6	<---	q8	5.696	.191
q4	<---	q6	6.175	.175
q3	<---	export	4.802	-.637
q3	<---	q6	5.584	-.157
q1	<---	Money policy	5.609	.354
q1	<---	q11	4.050	.145
q1	<---	q10	7.645	.216

In correcting indicators table for co-variance, can make relation with a bilateral symbol between 2 variables with upper correcting indicator. Making relationships include describing recognizable method [not theoretical method]. So the general correcting model of research is shown in below figure.

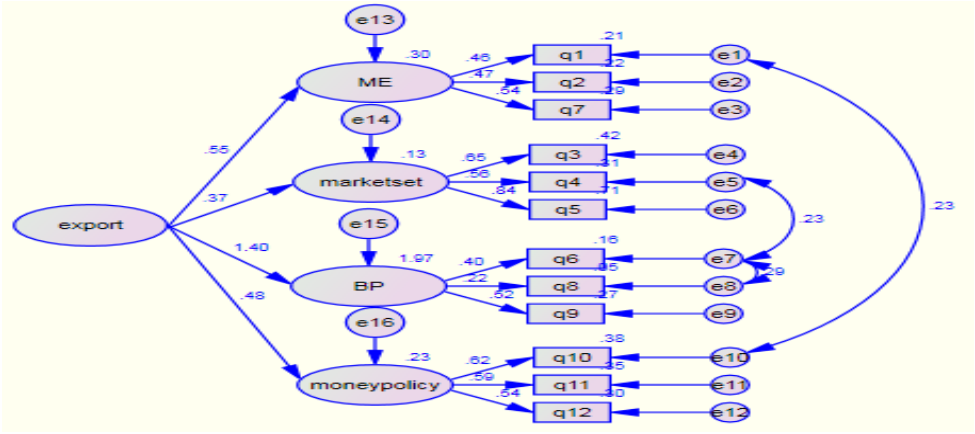


Fig. 11: The structural research model with standard coefficient

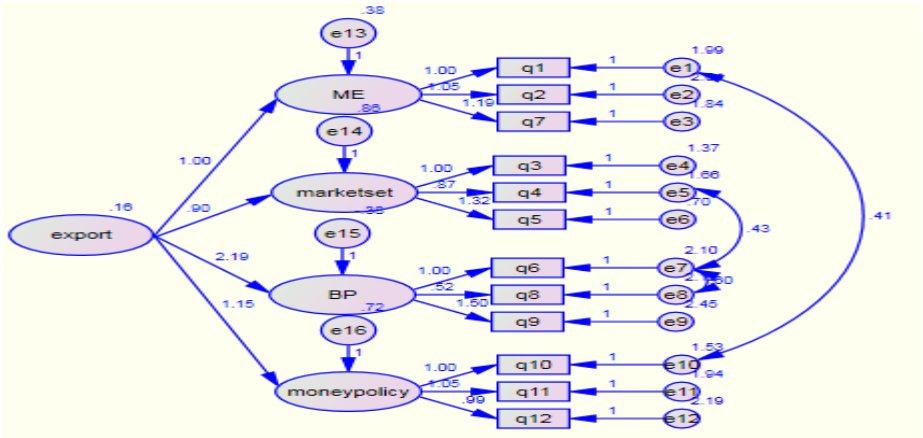


Fig. 12: The structural research model with non-standard coefficient

Control indicators

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	31	49.526	47	.373	1.054
Saturated model	78	.000	0		
Independence model	12	299.424	66	.000	4.537

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.835	.768	.990	.985	.989
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.712	.594	.704
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.019	.000	.058	.882
Independence model	.155	.138	.173	.000

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	190	216
Independence model	43	47

In structural model, the CMIN/DF after correcting is 1/05 and so it is suitable. The comparative indicators , are near or upper than 90 percent and generally are suitable. In other way, economic indicators are upper than 50 percent and so it is suitable. The RMSEA indicator is less than 5 percent and is suitable.

Little control indicators, meaning level and skew ratios.

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	31	49.526	47	.373	1.054
Saturated model	78	.000	0		
Independence model	12	299.424	66	.000	4.537

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.835	.768	.990	.985	.989
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.712	.594	.704
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.019	.000	.058	.882
Independence model	.155	.138	.173	.000

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	190	216
Independence model	43	47

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

The little control indicators and skew ratio and meaning level shows in up table that all of factor onus and estimating variances have meaning difference with 0. (*** symbol means that P is less than 0/001).

As you see in up table, all of onuses having meaning level less than 0/05 and so their relationships are proven with factors. With considering onus in money policy, tenth globe (liquidity) and twelfth globe (the fluctuation of oil price) could evaluated the variable much and less than other globes. In commercial payment balance, ninth globe (exchange policy) and eight (the currency rate in market could evaluated the variable in commercial payment balance much and less than other globes.

In market regulation policy, fifth globe (money policy) and four (payment balance) could estimate the market regulation policy much and less than other globes.

In macroeconomic, seventh globe (economic grow) and one (inflation) could estimate the macroeconomic variable much and less than other globes.

The effective indicators on exchanging of non-oil exports are categorize.

First table: The rank of research factors

Significance coefficient	Discovering indicators on currency rate of Fluctuations	Dependent variable
1.402	Commercial payment balance	The changing of non-oil exports
.549	Macroeconomic	
.479	money policy	
.367	Market regulation policy	

With attention to first table, all of assumptions in research are proven with based on effecting in money policy, macroeconomic, Market regulation policy, Commercial payment balance, on the exchanging of non-oil exports. (Relationship's meaning levels are less than 0/05) but the commercial payment balance has upper rank in among of other variables. (cignificance coefficient 1/402). After Commercial payment balance, the economic with 0/55 coefficience, money policy with 0/48 coefficience and the market regulation policy with 0/37 coefficience have next ranks in exchanging of non-oil export.

Results:

In this research, with based on analysis technique, the 4 effective factors on changing of non – oil exports such as macroeconomic, commercial payment balance, money policy and market regulation policy discover in Iran. The macroeconomic factor includes international produce, economic grows and inflation. The commercial payment balance factor includes currency rate in market, the content of commercial equation, (exchange rate). The money policy factor includes central bank's intervention, the fluctuation of oil price, (liquidity). The market regulation policy factor includes bank interest rate, money policy, payment rate.

In this research, we find that all onuses having meaning level which is less than 0/05 and their relation with factor proves .With attention to factor onuses in money policy variable, the tenth globe (liquidity) and twelfth globe in commercial payment balance , ninth globe (exchange rate) and eight (currency rate in market) could evaluate commercial payment balanced much and less than other globes.

In market regulation policy, fifth globe evaluated the market. In macroeconomic, seventh globe (economic grows) and one (nflation) could evaluated macroeconomic variable much and less than other globes.

Table 1: The rank of research factors

significance coefficient	Discovering indicators on currency rate of Fluctuations	Dependent variable
1.402	Commercial payment balance	The changing of non-oil exports
.549	Macroeconomic	
.479	Money policy	
.367	Market regulation policy	

With attention to first table, all of assumptions in research are proven with based on effecting in money policy, macroeconomic, Market regulation policy, Commercial payment balance, on the exchanging of non-oil exports. (relationship's meaning levels are less than 0/05) but the commercial payment balance has upper rank in among of other variables. (significance coefficient 1/402). After Commercial payment balance, the economic with 0/55 coefficience, money policy with 0/48 coefficience and the market regulation policy with 0/37 coefficience have next ranks in exchanging of non-oil export.

Future suggestions

The assessment of market regulation policy's effect on non-oil exports

The role of country's money policy on non-oil exports

The role of macroeconomic on non-oil exports

The role of commercial payment balance on non-oil exports

Journal of Applied Science and Agriculture, 9(4) April 2014, Pages: 1761-1776

REFERENCES

Akhtar, M., R. Spence Hilton, 1984. Effects of Exchange Rate Uncertainty on German and U.S. Trade, Federal Reserve Bank of New York, Quarterly Review, 9: 7-16.

Arize, A., 1995. Trade Flows And Real Exchange Rate Volatility: An Application Of Cointegration And Error-Correction Modeling, North American Journal of Economics and Finance, 6(1): 37-51.

Arize, A., 1999. The Demand For LDC Exports: Estimates From Singapore, The International Trade Journal, XIII(4): 345-369.

Arize, A., T. Osang, D. Slottje, 2000. Exchange Rate Volatility And Foreign Trade: Evidence From ThirteenL DC's, Journal Of Business and Economic Statistics, 18(1): 10-17.

Asseery, A., D. Peel, 1991. The Effects of Exchange Rate Volatility on Exports, Economics Letters, 37: 173-177.

Awokuse, T., Y. Yuan, 2006 . The Impact Of Exchange Rate Volatility On U.S. Poultry Exports

Agribusiness, 22(2): 233-245.

Brooks, R., M. Mckenzie, 1997. The Impact Of Exchange Rate Volatility On German-US Trade Flows, Journal Of International Financial Markets Institutions and Money, 7: 73-87.

Chowdhury, A., 1993. Does Exchange Rate Volatility Depress Trade Flows Evidence From Error-Correlation Models, The Review Of Economics And Statistics, pp: 700-706.

Clark P., 1973. Uncertainty, Exchange Rate Risk, And The Level Of International Trade, Western economic journal, 11: 302-313.

Cushman, D., 1988, U.S. Bilateral Trade Flows and Exchange Risk During the Floating Period, Journal of International Economics, 24: 317-330.

De Grauwe, P., 1988. Exchange Rate Variability And The Slowdown In Growth Of International Trade, Staff Papers- International Momentary Fund, 35: 63-83.

Doganlar, Murat, 2002. Estimating The Impact Of Exchange Rate Volatility On Exports: Evidence from Goldstein, M., Khan, M., 1976. The Supply And Demand For Exports: A Simultaneous Approach, International Monetary Fund, pp: 275-286

Hall, Hondroyiannis, Swamy, Tavlas, Ulan, 2010. Exchange rate volatility and export performance: Doemerging market economies resemble industrial countries or other developing countries?, Economic Modeling, 27: 1514-1521.

Hooper, P., S. Kohlhagen, 1978. The Effect Of Exchange Rate Uncertainty On The Prices And Volume Of International Trade, Journal Of International Economics, 8: 483-511.

Javed, Z., M. Farooq, 2009, Economic Growth and Exchange Rate Volatility in the Case of Pakistan ,Pakistan Journal of Life and Social Sciencees, 7(2): 112-118.

Kroner, K., W. Lastrapes, 1993. The Impact Of Exchange Rate Volatility On International Trade: Reduced Form Of Estimates Using The GARCH-in-Mean Model, Journal Of International Money And Finance, 12: 298-318.

Mckenzie, M. Melbourne, 1999. The Impact Of exchange Rate Volatility On International trade Flows, Journal Of Economic Surveys, 13(1): 71-105.

Peree, E., Steinher, 1989. Exchange Rate Uncertainty and Foreign Trade, European Economic Review, l33: 1241-1264.

Pozo, S., 1992. Conditional Exchange Rate Volatility and the Volume of International Trade: Evidence from the early 1900s, The Review of Economics and Statistics, 75: 325-29.

Thursby, J., M. Thursby, 1987. Bilateral Trade Flows, The Linder Hypothesis And Exchange Risk, Review Of Economics And Statistics, 69: 488-495.