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# Competitiveness of Chinese Small Firms in Nigerian Market

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Abstract: There has been an increase of Chinese investments to Nigeria after the formal establishment of Sino-Nigeria diplomatic relations in 1971. In 2014, China foreign direct investment (FDI) to Nigeria was around 1.9 billion USD, while the export volume stood at 15.4 billion USD making Nigeria to become largest importer of Chinese commodities in Africa. With this large number of the Chinese firms and FDI in Nigeria, this work assessed the competitiveness of Chinese firms, and their competitive advantage in Nigeria market. Using survey approach, and the model proposed by (Man, Lau et al. 2002) on Small and Medium Enterprises competitiveness the work determined the competitiveness of the Chinese firms in Nigerian market. A total number of 96 respondents were selected from 32 Chinese firms accessible to the researchers. Structured questionnaire were administered to them and some of them were interviewed. Among the findings were that Chinese firms in Nigerian market are significantly enjoying competitive advantage among other firms in Nigeria; political and policies instability, poor infrastructures language barrier and insecurity were major challenges; tariff incentives and large potential market were major motivations for operating in Nigeria Market. The work recommended among others that the Chinese firms operating in Nigeria should belong to relevant trade associations; maintain a club of quality assurance; enhance knowledge sharing by training locals in order to fast tract their operations efficiently; and employ the service of advertising agencies to create awareness and improve acceptability among the populace and the governments.

**Keywords:** China, Competitiveness of firms, Nigeria

## 1. Introduction

"Competitiveness" is a concept of interest at various spheres of studies. These include individual firm level, microeconomic level for industry polices, and the macroeconomic level for competitive positions of national economies (Nelson 1992). Competitiveness can be classified into three categories: which are firm, industry and nation. Competitiveness at firm level can be measured by the profitability, market share and firm's export; competiveness at the industry level can be measured by the profitability of the firm, trade balance and the balance of outbound and inbound foreign direct investment; while the competiveness at the nation level can be measured by the ability of the citizens to achieve a high and constantly rising standard of living, and it can be sustained through continuous improvement of productivity(Porter 1990).

Since China joined the World Trade Organization (WTO) in the year of 2001, there has been growing wave of Chinese firm's outward investment, helped by government policies which encourages firms to "Go Global" "走出去" (Chen 2016). Larger state-owned enterprises (SOEs) are perhaps more visible, but there is also a large and growing number of small and medium sized Chinese firms, mainly private-owned investing across Africa continent which Nigeria is one of major destination of the investments. In 2014 total volume bilateral trade between China and Nigeria reached \$18 billion, making Nigeria top three in Africa while China Foreign Direct Investment (FDI) to Nigeria was \$1.9 billion (NBS 2015).

Chinese mainland firms started investing in Nigeria after Nigeria and People's Republic of China (PRC) formally established diplomatic relations in 1971. Trades and investments between the two countries accelerated under ex-president Olusegun Obasanjo (Chen 2016). And, it was the Late General Sani Abacha Administration that brought the Chinese closer to Nigeria in 1995 (Udeala

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2010). According to the Chinese Consul-General in Nigeria, Mr Liu Kan in his 2014 interview with some Nigerian journalists, he said that there are 200 Chinese firms operating in petroleum, iron and steel, agricultural and manufacturing sectors, as well as free trade zone in Nigeria (Aderibigbe 2014). But the number is likely underestimated because there are large number of Chinese small and medium firms operating in Nigeria; moreover the certification by China's ministry of Commerce only tracks of projects above 10 million USD. (Shen 2013) reports that some Chinese firms don't register with China's ministry of commerce when going abroad because of bureaucratic approval procedures.

It seems that Chinese entrepreneurs want to do business in Nigeria. Of course, the population of Nigeria and its strategic position in Africa among others attract business investors to Nigeria. This study is to investigate the competitiveness of Chinese firms and their competitive advantage in Nigeria using a survey method.

This work hypothesized that Chinese firms in Nigerian market are not significantly enjoying competitive advantage among other firms in Nigeria. The researchers desired to know the factors that actually made Chinese firms competitive in Nigeria.

This paper is further arranged in sections: conceptual and theoretical framework, review of related literature, methodology, data presentation and analysis, and summary of findings, conclusion and recommendations.

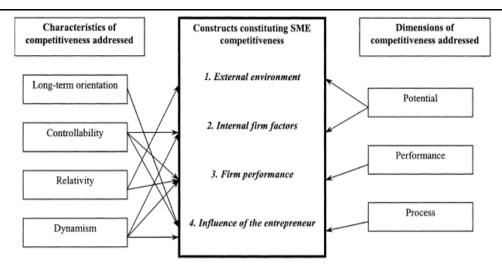
#### 2. CONCEPTUAL AND THEORETICAL FRAMEWORK

**Competitiveness** pertains to the ability and performance of a firm, sub-sector or country to sell and supply goods and services in a given market, in relation to the ability and performance of other firms, sub-sectors or countries in the same market (Wikipedia, the free encyclopedia).

In simply terms competitiveness refers to the set of institutions, policies, and factors that determine the level of productivity of a firm, or an industry or a country. The level of productivity, in turn, sets the level of prosperity that can be reached by a firm or an industry or an economy. The productivity level also determines the rates of return obtained by investments in a firm or an industry or in an economy, which in turn are the fundamental drivers of its growth rates.

Thus, a more competitive firm or industry or economy is one that is likely to grow faster over time. (Waheeduzzaman and Ryans 2013) pointed out that the concept of competitiveness involves different disciplines, which includes price competitiveness perspective and/or the comparative advantage, historical and socio-cultural perspectives and the strategy and management perspective. Competitiveness can also be treated as a dependent, independent, or intermediary variable, depending on the perspectives which the issue is approached (Man, Lau et al. 2002).

Competitiveness studies on large firms may not directly be applied on small and medium firm level, because larger firms and smaller firms differ from each other in terms of their organizational structures, responses to the environment, managerial styles and, more importantly, the ways in which they compete with other firms(Man, Lau et al. 2002). The framework proposed by(Horne, Lloyd et al. 1992) suggested that competitiveness for small firms should be the interaction of the scope for action or growth in the business environment, the degree of access to capital resources, and the intrinsic ability of the firm to act as represented in entrepreneurship. (Man, Lau et al. 2002) studying on Small and Medium Enterprises' (SMES) competitiveness made three major conclusions. Firstly, SMES competitiveness model should take the threefold dimensions of potential, process and performance into consideration, although it is necessary to specify the right constructs to these dimensions for different contexts and for operationalization. Secondly, the choices of constructs and variables should also meet the characteristics of long-term orientation, controllability, relativity and dynamism. Thirdly, the competitiveness of SMES should comprise the four major constructs relating to the firm's internal factors, external environment, influences of the entrepreneur and performance of the firm. The relationship between the four constructs, characteristics and dimensions of SMES competitiveness are summarized in Figure 1.



**Figure 1.** The Relationship between the Constructs, Characteristics and Dimensions of SMES Competitiveness **Source:** Man, Lau and Chan (2002)

The external environment particularly has an influence in determining SMEs competitiveness, because many SMEs are faced by lack of market power and the turbulent nature of newly emerging markets, which often make them more vulnerable to external influences than larger firms (Bulis and Skapars 2012). External environment included Factor and Demand conditions, Government effects, Institutions and chance events(Bulis and Skapars 2012).

Internal firm factors included financial, organizational structure and systems, human and technological resources, productivity, image and reputation, innovation, quality, culture, customer service and product/service variety and flexibility. The important feature of SMES operation is the influential role of the entrepreneur in affecting the performance of the firm, particularly when the firm still small (Slevin 1995). The behavior characteristics of the entrepreneur is emphasized.

Firm competitiveness is only a means to an end. The performance of the firm is the end (Bulis and Skapars 2012). The performance from SMEs competitiveness should be long-term focused rather than short-term oriented. In spite of these observed constructs, global challenges tend also to influence the competitiveness of a firm, an industry, an economy. According to the World Economic Summit (2015). the global financial crisis has created new obstacles for doing business across the world, and changed the priorities of firms in countries at all stages of development. The Table 1 showed the most problematic factors for doing business in 2007 and 2015.

The World Economic Summit (2015) reviewing the table observed that the problematic factors include the deleveraging and stricter regulations in the banking sector, uncertain economic prospects, and despite extremely low interest rates, obtaining finance is still very difficult, especially for small and medium-sized enterprises. In advanced economies, firms surveyed in 2015 indicate access to finance as the 4th most pressing concern. This has more than doubled since 2007, when it was only 7th.Access to finance is now almost as problematic in advanced as in developing economies, where it has risen from 3rd in 2007 to become the number 1 priority.

The Table 1 showed that in 2015 the most problematic factors for doing business in emerging and developing economies were access to finance, corruption, and government bureaucracy. These observations point to areas to address to enhance competitiveness of an economy or firm.

Table1. The Most Problematic Factors for Doing Business in 2007 and 2015

	A	dvanced Economies	
2007		2015	
Factor	Score*	Factor	Score*
Government bureaucracy	13.6	Government bureaucracy	14.2
Restrictive labor regulations	13.6	Tax rates	13.1
Tar rates 11.9		Restrictive labor regulations	12.8
Complexity of tax regulations	10.7	Access to finance	10.8
Inadequately educated workforce	9.0	Complexity of tax regulations	8.8
F	merging Ma	rket and Developing Economies	
2007		2015	
Factor Score*		Factor	Score*

Government bureaucracy 12.3		Access to finance	11.7
Corruption	11.4	Corruption	11.4
Access to finance	9.8	Government bureaucracy	11.3

Source: World economic forum, executive opinion survey, 2007and 2015 editions

**Note2:** Respondents to the Executive Opinion Survey were asked to select the five most problematic factors for doing business in their country and to rank them between 1 (most problematic) and 5. The numbers presented in this box show the responses weighted according to their rankings.

#### 3. REVIEW OF RELATED LITERATURE

## 3.1. Sino-Nigeria Economic Cooperation

Since the establishment of Sino-Nigeria diplomatic relation in 1971, there has been a substantial expansion of **bilateral trade** between both country, which increased significantly since the inauguration of this present civilian administration under ex-president Olusegun Obasanjo (Ogunsanwo 2007, Abua 2008). It was the Sani Abacha Administration that brought the Chinese closer to Nigeria in 1995 to fill the yawning gap created by the isolation of his government by Western countries because of his human rights abuses, killings and other tyrannical measures of the regime especially the execution of Mr. Ken Saro-Wiwa and other Ogoni environmental activists (Ogunsanwo 2007, Udeala 2010).

The trade figures between China and Nigeria obtained from World Integrated Trade Solution (WITS) and National Bureau of China (NBC) between 2001 and 2014, indicate that the bilateral trade volume between China and Nigeria were 2.1 billion USD in 2001 reached to 18 billion USD in 2014. As a result of considerable growth of their bilateral relations, this made Nigeria to become China top three trade partner in Africa and largest importer of Chinese products in the continent.

The major problem in China's trade with Nigeria, as indicated in Table 2, is a large trade imbalance which is in favor of China. During the visitation of Nigeria current President Muhammadu Buhari to China early this year (2016) at the opening Sino-Nigeria business/investment forum in Beijing, he urged Nigerian and Chinese business communities to work harder to reduce the trade imbalance between both countries observing that the trade and economic relations between both countries must be mutually-beneficial and conducted with reciprocity and trust(NAN 2016) Vanguard NG, 13<sup>th</sup> April 2016). In the year 2014, China total export volume to Nigeria stood around 15.4 billion USD while Nigeria export volume was 2.6 billion USD which means China accumulated around 85% of total trade volume between both countries.

The trade volume between China and Nigeria has been increasing yearly as revealed in the Table 2. The bilateral trade is in favor of China.

Table2. 2005-2014 Bilateral Trade Statistics between Nigeria & China

Year	Trade volume (USD 'millions)	China's export to Nigeria	China's import from Nigeria
		(USD 'millions)	(USD 'millions)
2005	2,181.90	2,305.30	527.1
2006	3,133.50	2,855.70	280
2007	4,337.70	3,800.20	537.5
2008	7,268.00	6,758.10	509.9
2009	6,373.00	5,476.00	897
2010	7,768.50	6,696.80	1,071.60
2011	10,789.30	9,205.60	1,583.70
2012	10,570.10	9,296.30	1,273.80
2013	13,589.20	12,042.60	1,546.60
2014	18,051.90	15,393.60	2,658.40

**Source:** World Integrated Trade Solution (Wits), China Trade Statistics (2016)

# 3.2. China Foreign Direct Investment (FDI) to Nigeria

The growing of Sino-Nigeria diplomatic and trade relations increases China FDI to Nigeria, which can be seen in almost all the sectors in Nigeria. According to National Bureau of China (NBC) figures in 2015, Nigeria was one of the highest recipients of China FDI to Africa receiving more than 1.9 billion USD in 2014. In 2011, Chinese FDI comprised 24% of total FDI to Nigeria(Shen 2013) See Table 3.

China investments in Nigeria can be classified into three: Chinese State Owned Enterprise (SOE) investments, Private enterprise investment and Joint-venture investment. Many Chinese firms have cited Nigeria as an attractive FDI destination because of its large domestic market and growing middle class, Africa largest economy and as well as its access to neighboring North and West African economies (Chen 2016). Some Chinese firms entrepreneurs interviewed also cited that cheap labor, low competition, government incentive policies especially for the manufacturing sectors and the two special economic zones built by the help of Chinese government as motivations for them to invest in Nigeria.

**Table3.** China FDI to Nigeria 2005-2014 (USD 10,000)

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Amount	12635	17560	39035	16256	17186	18489	19742	33305	20913	19977

**Source:** *National Bureau of Statistics, China* (2015)

#### 3.3. Chinese Firms in Nigeria

The number Chinese firms in Nigeria have substantially increased, but the numbers increased significantly since the coming back of the civilian rule in 1999. There are over 200 Chinese firms operating in petroleum, iron and steel, agricultural and manufacturing sectors, as well as free trade zone in Nigeria (Aderibigbe 2014). But the number is likely underestimated due the large number of Chinese small and medium firms operating in Nigeria, and since the certification by China's ministry of Commerce only tracks of projects above 10 million USD. (Shen 2013) reports that some Chinese small firms don't register with China's Ministry of Commerce when going abroad because of bureaucratic approval procedures. The Chinese firms operating in Nigeria generated approximately 69,000 jobs by 2011 (Aderibigbe, 2014).

Chinese firms have impacted positively in Nigeria economic growth, creating jobs for the teaming youths. The firms also were very active in corporate social responsibility (CSR) in Nigeria. For example, the Huawei Company offered scholarships to some students in Lagos State University, Lagos Nigeria and constructed a building to accommodate Information and Communication Technology (ICT) center in African University of Science and Technology, and the China Civil Engineering Construction Corporation (CCECC) in 2015 renovated six-block classrooms in Lagos at a cost of 80,000 USD dollars(NAN 2015). Some of the Chinese firms operating in Nigeria are listed in Table 4.

Table4. Some Major Chinese Firms Operating In Nigeria

S/N	Companies names	Sector of activities		
1	CNPC	Oil and gas		
2	CNOON	Offshore oil and gas		
3	Sinopec	Oil and gas		
4	CCECC	Construction		
5	SEPCO	Electric power construction		
6	CGC	Construction		
7	CSCEC	Construction, Real Estate		
8	Sinoma	Cement Engineering construction		
9	Sinohydro	Power		
10	CNEEC	Power		
11	Huawei	Telecom		
12	Startimes	Telecom		
13	ZTE	Telecom		
14	Levono	Information Technology		
15	Wanglaoji	Beverages industry		
16	CWAY Group	Food & beverages industry		
17	Lee group	Manufacturing ™		
18	Happylife Resturant	Service		
19	Wempco	Manufacturing ™		
20	Baoyao steel	Steel		
21	Royal Motor	Automobile		
22	F.A.W	Automobile		
23	Federated Steel	Steel		

24	Jihua	Furniture manufacturing	
25	Hongxing Steel Steel		
26	Mark Sino	PVC manufacturing	
27	Goodwill Ceramics	Ceramics manufacturing	
28	Longgan Furniture	Furniture manufacturing	
29	Flying Horse	Aluminum piping manufacturing	
30	Hewang Cardboard	packaging company	
31	Lifetime	Furniture manufacturing	
32	Skyrun Holdings	electronics manufacturing	
33	Happychef Restaurant	estaurant Food &Restaurant Business	
34	Shifa Plastics	Plastic manufacturing	
35	Sunday Light bulb	Lightbulb Manufacturing	
36	ZME Shanghai Co., Ltd	Mining	
37	Sun Lung	Telecom Equipment	
38	Yufeng Paper company	Paper manufacturing	
39	Winghan furniture	Furniture manufacturing	
40	Vindax Tissue Paper	Manufacturing	
41	Plas Alliance Co., Ltd	Bags & shoes manufacturing	
42	Richbon Automotive	Automobile	

Sources: Egbula and Zheng, 2011 as in Chen et al 2016

## 3.4. Comparative Global Competitiveness Index (2015 – 2016)

The Table 5 showed the comparative Global Competitiveness Index between Nigeria and China for the period 2015 and 2016. The indicators are nationwide indexes compiled by World economic forum. A closer look showed that Nigeria and China seems to be comparable in terms of Financial Market development, whereas China ranked 54<sup>th</sup> Nigeria ranked 79<sup>th</sup> in the world. China is first in terms of market size and Nigeria ranked 25<sup>th</sup>. Of course, there are much Nigeria shall learn from Nigeria. And, Nigeria possesses the opportunities to improve global ranking of China. Providing such technology wherein Nigeria lags betters Nigeria development and increases China rating.

**Table5.** Comparative Global Competitiveness Index 2015 – 2016: Nigeria and China

Parai	neters	China		Nigeria
		Rank	Score	Rank Score
Overa	all Index	28	4.89	124 3.46
Sub-i	ndexes:			
1.	Basic requirements	28	5.37	136 3.19
2.	Efficiency enhancers	32	4.66	81 3.87
3.	Innovation & Sophistication	34	4.11	114 3.22
Pillar	s of competitiveness:			
I.	Basic requirements			
1.	Institutions	51	4.15	124 3.19
2.	Infrastructure	39	4.73	133 2.10
3.	Macroeconomic	8	6.52	62 4.81
4.	Health and Primary education	44	6.09	99 5.28
II.	Efficiency enhancers			
5.	Higher education and training	68	4.33	128 2.75
6.	Goods market efficiency	58	4.37	100 4.07
7.	Labour market efficiency	37	4.50	35 4.55
8.	Financial market development	54	4.08	79 3.75
9.	Technological readiness	74	3.70	106 3.03
10.	Market size	1	6.98	25 5.07
III.	Innovation & Sophistication factors			
11.	Business sophistication	38	3.65	94 3.65
12.	Innovation	31	3.89	117 2.78

**Source:** Extracted from reports.weforum.org/global-competitiveness-index-2015-2016

#### 4. METHODOLOGY

This study employed survey method using interviews and structured questionnaire. The primary data were sourced from accessible 32 Chinese Small and Medium Scale Enterprises operating in Nigeria.

Ten firms were into trading (wholesales and retails), and twenty two were manufacturing firms. Three senior staff who have stayed in Nigeria for more than 3 years were deliberately selected from each of the 32 firms. A total number of 96 participants responded to the structured questionnaire. The interview and the questionnaire administration were conducted between January 2016 and July 2016. The questionnaire was designed using five points likert scale format. The e-view software version 8 was used to run the logistic regression.

SME competitiveness model performed by (Man, Lau et al. 2002) which consists of four major constructs: external environment, firm's internal factors, firm's performance, and influences of the entrepreneurs were adopted from this study.

The work modeled that:

Competitiveness = f(external environment, firm's internal factors, firm's performance, influences of the entrepreneurs) (1)

Thus, 
$$COMP = EXTV + FIIF + FPER + INFE$$
 (2)

$$COMP = \beta_0 + \beta_1 EXTV + \beta_2 FIIF + \beta_3 FPER + \beta_4 INFE + II$$
(3)

Where.

COMP = Competitiveness (Dummy variable: 0 for non-competitive and 1 for competitive)

EXTV = External environment

FIIF = Firm's internal factors

FPER = Firm's performance

INFE = Influences of the entrepreneurs

 $\beta_0$ =Constant, intercept of COMP

 $\beta_{1}$  = Coefficients of the independent variables

<sub>U</sub> = Stochastic, error terms

## 5. DATA PRESENTATION

The collated data from the administered questionnaire were processed with the e-view software version 8. The method applied is the ML-Binary Logit (Quadratic hill climbing) with the aim of determining the competitiveness of the studied Chinese firms in Nigeria business environment. The Appendix I (Output data showing the estimates of the Chinese firms' competitiveness) and Appendix II (Linear deterministic trend on the variables on the model) depicted the output data.

# 6. ANALYSIS

From Appendix I, the number of observations was 95, out of which 77 (81%) affirmed that Chinese firms in Nigeria enjoy competiveness. Only 18 (i.e. 19%) participants felt that the Chinese firms were not really comparatively excelling in Nigeria. The z statistic of the independent variables except the FPER are positive indicating values above the mean. Thus the distribution can be said to be normal.

The Appendix II revealed in the Unrestricted Cointegration Rank Test (Trace) that at 5% level of significance all the hypotheses can be rejected. The prob values were less than 0.05. Using Unrestricted Cointegration Rank Test (Maximum Eigenvalue) at 5% level of significance all the hypotheses can be rejected except for linear relationship between competitiveness and the financial performance of the studied Chinese firms. This later variable indicated prob statistic of 0.0897. By extension the hypothesis that Chinese firms are not significantly competitive in financial performance can be rejected at 10% level of significance. The conclusion is that Chinese firms operating in Nigeria are highly competitive in spite of the alleged insecurity in some parts of Nigeria. They had always avoided the areas and towns notorious for insecurity and hostile to strangers.

The findings agreed with the responses from the interviewed Chinese firms' owners. They observed that the external environment remained challenging, characterized by political and policies instability; lack of infrastructures such as public power supply, transportation facilities, water and road network; exchange rate instability; and insecurity caused by Boko haram terrorists group in the North-East, Niger Delta militants in the South-South, Indigenous People of Biafra agitation in the South-East; and

kidnapping incidents. (Chen 2016) reported that many Chinese firms cited safety and security as the major factors that determine their choice of investment location in Nigeria. For instance, the Sunday light-bulbs manager commented: "our company would have be cheaper operating in Lagos instead of Lekki Special Economic Zone (LSEZ), but safety is worth paying for". Thus Chinese small firms' owners including the owners of Yufeng packing Company and Shi Li Long which their company located at Ogun-Guangdong free trade zone Igbesa said that most of Chinese small firms operating in Nigeria have more advanced technology than their local competitors, but they lack locally skillful human resources, but most of their local workers basically know nothing on how to operate machines, the company has to spend a huge money training the workers. Chinese small firms operating in Nigeria are not performing well in area of customer service, particularly in service after sale, among the Chinese firms' managers we interviewed only 5 firms are offering service after sale. Language barrier, culture and working ethics differences are also challenges Chinese firms are facing in Nigeria. Mr Zhao a Chinese furniture firm manager in Lagos said that it was so difficult for him to operate in Nigeria when he started his company five years ago, due to language barrier. He has to learn English language to enable him communicate well with his local workers and customers. Among the interviewed Chinese phone dealers in Onitsha main market, two of them narrated how they lost many customers because they were unable to speak Pigin English (a language spoken by many Nigerians). They remedied this deficiency by paying someone to teach them. And, ever since according to them their customers' base has been on increase. Some of the participants related that cultural differences and special days of work free affected the speed they wished to operate. Many Nigerian workers would work on Sundays in the South Nigeria, on Fridays on North Nigeria. These are special days to worship God.

Further interview with some of the participants revealed the motivations of the Chinese entrepreneurs in Nigeria. They related that the potential customers (being the largest economy and most populated nation in Africa); high competitiveness in China market; less intra industry competition in Nigeria; high profit margin prospect; and lower tariff incentive. This later comment agreed with (Chen 2016)) that tariff when imported finished products in Nigeria stands at 40 per cent, while it's 5 per cent if the same products are locally assembled or manufactured. From the interview we discovered that this lower tariff incentive influenced many Chinese trading companies like Skyrun and Zhaochun Furniture to move from importation of finished products to manufacturing them locally.

The participants also lamented that paucity of experience and skills to operate in foreign land, and difficulty in sourcing raw material locally were their major challenges. It was told that a Chinese Textile Company in Calabar, which was specialized in textile printing and dying closed down in early 2014 due to short supply of dye.

In terms of Firm performance, Chinese firms in Nigeria are performing highly well. According to Time Ceramics Limited manager, ceramics and tiles industry is dominated by Chinese tiles companies, having more than 65per cent market shares in Nigeria. The 2014 China export volume to Nigeria was 15.4 billion USD making Nigeria to become largest importer and user of Chinese products in Africa (See Table 2). World integrated trade solution (WITS) 2014 data also revealed that among top five Nigeria trade partners, Chinese products represented 83.80 per cent of Nigeria's import share in total products making it to become the highest share of foreign products used in Nigeria followed by United States of America with 56.74 per cent, India with 54 per cent, Belgium with 34.02 per cent, and Netherland with 32.78 per cent(WITS 2014).

The respondents revealed that the strategies that induced the financial performance competitiveness to include good leadership, quality products, and low profit margin that increased volume of sales. For instance, a manager in the Zhaochun Furniture Company told us that in furniture industry, Chinese furniture companies like Bedtime, Lifetime, Jihua, Winghan and Longan are among the top leaders in the industry. He said that those companies are using price and quality to dominate the furniture market. He illustrated that a full set of sitting and dining room Chinese furniture is ranging from 200,000-500,000 naira against 500,000-5million naira of European or American furniture. The manager of Unitech a Chinese leading tricycle manufacturing company agreed with him. He illustrated also that a unit of his product is 350,000 -400,000Naira, while his competitors (Indians) sell their own between 500,000-600,000 Naira. Chinese firms are playing big roles in almost all the sectors in Nigeria.

We conclude that Chinese firms are outperforming other firms from other countries in many industries. However, there are instance of quality compromise which affect the long run financial performance of the Chinese firms in Nigeria.

# 7. SUMMARY OF FINDINGS

Among the findings of this work were that:

- 1. Chinese firms in Nigerian market are significantly enjoying competitive advantage among other firms in Nigeria.
- 2. Major challenges confronting the Chinese firms in Nigeria were political and policies instability, lack of infrastructures, exchange rate instability, corruption, insecurity, culture differences, language barrier and lack of experience to operate in foreign land.
- 3. The win strategies of the Chinese firms in Nigeria were penetration price and cost saving strategies.
- 4. The large population and economy, lower tariff, cheap labor, less competition and profit margin motivated most of Chinese firms to choose Nigeria as their investment destination in Africa.

#### 8. CONCLUSION

There have been an increase of Chinese firms in Nigeria since the establishment of Sino-Nigeria relationship in 1971. China's foreign direct investment (FDI) to Nigeria has also been increasing, reaching to 1.9 billion USD in 2014. Over 200 Chinese firms are operating in Nigeria, which large number of them are small and medium firms. This number is expected to increase as the bilateral agreement between Nigeria and China are becoming mutually beneficial.

It becomes indispensable that Chinese firms in Nigeria cannot afford to lose market share to competitors. Efforts should be made to cultivate the Sino-Nigeria relationship.

## 9. RECOMMENDATIONS

Given the findings made in this work we submit the following recommendations:

- 1. The Chinese firms operating in Nigeria should endeavor to integrate into the Nigeria market by belonging to relevant registered trade associations of their various sectors.
- 2. The Chinese firms operating in Nigeria should also maintain a club of quality assurance wherein they should police each other to ensure compliance to standard required by the Standard Organisation of Nigeria and other regulatory agencies of Nigeria. Inappropriate and unethical practice of a Chinese firm shall be associated to every other Chinese firms.
- 3. In order to increase their competitiveness, Chinese firms should enhance knowledge sharing by training local workers to possess skills and capabilities to fast-track their operations in Nigerian market. The Chinese firms should consider partnering with local firms to be able to sources some raw materials locally and expand network of distribution. There is no gain saying that services of advertising agencies should be sought by the Chinese firms with a view of creating more awareness of their products through and carrying out sustainable corporate social responsibility (CSR) that will endear them to the populace and governments.

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## Appendix I: Output data showing the estimates of the Chinese firms' competitiveness

Dependent Variable: COMP

Method: ML - Binary Logit (Quadratic hill climbing)

Date: 10/03/16 Time: 14:48 Sample (adjusted): 97 192

Included observations: 95 after adjustments Convergence achieved after 4 iterations

Covariance matrix computed using second derivatives

Variable	Coefficient	Std. Error	z-Statistic	Prob.
EXTV	0.082738	0.109441	0.756012	0.4496
FIIF	0.081979	0.104761	0.782533	0.4339
FPER	-0.121235	0.126486	-0.958486	0.3378
INFE	0.024176	0.107660	0.224560	0.8223
Mean dependent var	0.810526	S.D. dependent v	ar	0.393963
S.E. of regression	0.398269	Akaike info crite	rion	1.046701
Sum squared resid	14.43428	Schwarz criterion	n	1.154233
Log likelihood	-45.71831	Hannan-Quinn c	riter.	1.090152
Deviance	91.43662	Restr. Deviance		92.23719
Avg. log likelihood	-0.481245			
Obs with Dep=0	18	Total obs		95
Obs with Dep=1	77			

**Source:** e-view output data computed by the authors

Appendix II: Linear deterministic trend on the variables on the model

Date: 10/03/16 Time: 14:51 Sample (adjusted): 102 192

Included observations: 85 after adjustments

#### Competitiveness of Chinese Small Firms in Nigerian Market

Trend assumption: Linear deterministic trend Series: COMP EXTV FIIF FPER INFE Lags interval (in first differences): 1 to 4

#### Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None * At most 1 * At most 2 * At most 3 * At most 4 *	0.365111	114.2779	69.81889	0.0000
	0.285314	75.66196	47.85613	0.0000
	0.229459	47.10944	29.79707	0.0002
	0.137917	24.95314	15.49471	0.0014
	0.135119	12.33886	3.841466	0.0004

Trace test indicates 5 cointegrating eqn(s) at the 0.05 level

## Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None * At most 1 * At most 2 * At most 3 At most 4 *	0.365111	38.61592	33.87687	0.0126
	0.285314	28.55252	27.58434	0.0375
	0.229459	22.15631	21.13162	0.0358
	0.137917	12.61427	14.26460	0.0897
	0.135119	12.33886	3.841466	0.0004

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level

## Unrestricted Cointegrating Coefficients (normalized by b'\*S11\*b=I):

COMP	EXTV	FIIF	FPER	INFE	
-1.939944	-0.402099	-0.524434	0.336729	0.284979	
0.024546	-0.862312	0.092178	0.815880	-0.802230	
-0.017619	-0.203514	0.815140	0.059955	0.508336	
-1.643096	0.613160	0.044889	0.179123	0.136712	
2.951384	0.095100	-0.224008	0.589018	0.372261	

#### Unrestricted Adjustment Coefficients (alpha):

1 Cointegrating Equation(s):	Log likelihood	-680.9797
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Normalized coint	egrating coefficie	nts (standard error	r in parentheses)	
COMP	EXTV	FIIF	FPER	INFE
1.000000	0.207273	0.270335	-0.173577	-0.146901
	(0.09882)	(0.08544)	(0.09057)	(0.09123)

Adjustment coefficients (standard error in parentheses)

D(COMP) -0.202807

(0.05412)

<sup>\*</sup> denotes rejection of the hypothesis at the 0.05 level

<sup>\*\*</sup>MacKinnon-Haug-Michelis (1999) p-values

<sup>\*</sup> denotes rejection of the hypothesis at the 0.05 level

<sup>\*\*</sup>MacKinnon-Haug-Michelis (1999) p-values

D(EXTV)	-1.321805				
2(21111)	(0.45125)				
D(FIIF)	-0.804726				
2 (1 111 )	(0.51264)				
D(FPER)	0.479802				
D(III LIK)	(0.41954)				
D(INFE)	1.409202				
D(IIVI'L)	(0.46388)				
	(0.40388)				
2 Cointegrating E	quation(s):	Log likelihood	-666.7034		
Normalized coint	agrating coeffici	ents (standard error	in paranthasas)		
COMP	EXTV	FIIF	FPER	INFE	
1.000000	0.000000	0.290776	0.022404	-0.337739	
1.000000	0.000000	(0.09731)	(0.08527)	(0.09107)	
0.000000	1.000000	-0.098619	-0.945516	0.920710	
0.000000	1.000000				
		(0.22929)	(0.20092)	(0.21460)	
		error in parentheses	s)		
D(COMP)	-0.203084	-0.032299			
	(0.05406)	(0.02651)			
D(EXTV)	-1.312205	-0.611231			
	(0.44104)	(0.21629)			
D(FIIF)	-0.812861	0.118976			
	(0.50624)	(0.24827)			
	0.469809	0.450520			
D(FPEK)	(0.40760)	(0.19989)			
D(FPER)	(0.40700)				
, ,	1.420404	-0.101426			
D(INFE)	,				
, ,	1.420404	-0.101426			
D(INFE)	1.420404 (0.45031)	-0.101426	-655.6253		
D(INFE)  3 Cointegrating E	1.420404 (0.45031) (quation(s):	-0.101426 (0.22084)			
D(INFE)  3 Cointegrating E	1.420404 (0.45031) (quation(s):	-0.101426 (0.22084) Log likelihood		INFE	
D(INFE)  3 Cointegrating E  Normalized cointegrations	1.420404 (0.45031) equation(s):	-0.101426 (0.22084) Log likelihood	in parentheses)	INFE -0.588387	
D(INFE)  3 Cointegrating E  Normalized cointegration COMP	1.420404 (0.45031) equation(s):	-0.101426 (0.22084) Log likelihood ents (standard error	in parentheses) FPER		
D(INFE)  3 Cointegrating E  Normalized cointe  COMP	1.420404 (0.45031) equation(s):	-0.101426 (0.22084) Log likelihood ents (standard error	in parentheses) FPER 0.070398	-0.588387	
D(INFE)  3 Cointegrating E  Normalized cointe  COMP  1.000000	1.420404 (0.45031)  Equation(s): egrating coeffici EXTV 0.000000	-0.101426 (0.22084) Log likelihood ents (standard error FIIF 0.000000	in parentheses) FPER 0.070398 (0.11490) -0.961793	-0.588387 (0.12522) 1.005720	
D(INFE)  3 Cointegrating E  Normalized cointe  COMP  1.0000000  0.0000000	1.420404 (0.45031) equation(s): egrating coeffici EXTV 0.000000 1.000000	-0.101426 (0.22084)  Log likelihood  ents (standard error FIIF 0.0000000  0.0000000	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151)	-0.588387 (0.12522) 1.005720 (0.21960)	
D(INFE)  3 Cointegrating E  Normalized cointe  COMP  1.000000	1.420404 (0.45031)  Equation(s): egrating coeffici EXTV 0.000000	-0.101426 (0.22084) Log likelihood ents (standard error FIIF 0.000000	in parentheses) FPER 0.070398 (0.11490) -0.961793	-0.588387 (0.12522) 1.005720	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000 0.0000000	1.420404 (0.45031) (quation(s): egrating coeffici EXTV 0.000000 1.000000 0.000000	-0.101426 (0.22084)  Log likelihood  ents (standard error FIIF 0.000000  0.0000000  1.0000000	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000  0.0000000  0.0000000	1.420404 (0.45031) equation(s): egrating coeffici EXTV 0.000000 1.000000 0.000000	-0.101426 (0.22084)  Log likelihood  ents (standard error FIIF 0.000000  0.0000000  1.0000000  error in parentheses	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000 0.0000000	1.420404 (0.45031) equation(s): egrating coeffici EXTV 0.000000 1.000000 0.000000	-0.101426 (0.22084)  Log likelihood  ents (standard error in FIIF 0.000000 0.000000 0.000000 0.000000 0.000000	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000 0.0000000 0.0000000 Adjustment coeff	1.420404 (0.45031) equation(s): egrating coeffici EXTV 0.000000 1.000000 0.000000 icients (standard -0.202787 (0.05390)	-0.101426 (0.22084)  Log likelihood  ents (standard error in FIIF 0.000000 0.000000 0.000000 0.000000 0.000000	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  6) -0.069609 (0.02705)	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000  0.0000000  0.0000000	1.420404 (0.45031) equation(s): egrating coeffici EXTV 0.000000 1.000000 0.000000 icients (standard -0.202787 (0.05390) -1.314868	-0.101426 (0.22084)  Log likelihood  ents (standard error in FIIF 0.000000 0.000000 0.000000 0.000000 0.000000	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  6) -0.069609 (0.02705) -0.198051	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000  0.000000  0.0000000  Adjustment coeff D(COMP)  D(EXTV)	1.420404 (0.45031) (quation(s): egrating coeffici EXTV 0.000000 1.000000 0.000000 icients (standard -0.202787 (0.05390) -1.314868 (0.43951)	-0.101426 (0.22084) Log likelihood ents (standard error FIIF 0.000000 0.000000 1.000000 error in parentheses -0.028868 (0.02703) -0.641997 (0.22041)	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  c) -0.069609 (0.02705) -0.198051 (0.22056)	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000 0.0000000 0.0000000 Adjustment coeff D(COMP)	1.420404 (0.45031) (quation(s): egrating coeffici EXTV 0.000000 1.000000 0.000000 icients (standard -0.202787 (0.05390) -1.314868 (0.43951) -0.797587	-0.101426 (0.22084) Log likelihood ents (standard error FIIF 0.000000 0.000000 1.000000 error in parentheses -0.028868 (0.02703) -0.641997 (0.22041) 0.295398	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  c) -0.069609 (0.02705) -0.198051 (0.22056) -0.954722	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000  0.000000  0.000000  Adjustment coeff D(COMP)  D(EXTV)  D(FIIF)	1.420404 (0.45031) equation(s): egrating coeffici EXTV 0.000000 1.000000 0.000000 icients (standard -0.202787 (0.05390) -1.314868 (0.43951) -0.797587 (0.45979)	-0.101426 (0.22084)  Log likelihood  ents (standard error FIIF 0.000000  0.000000  1.000000  error in parentheses -0.028868 (0.02703) -0.641997 (0.22041) 0.295398 (0.23058)	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  6) -0.069609 (0.02705) -0.198051 (0.22056) -0.954722 (0.23074)	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000  0.000000  0.0000000  Adjustment coeff D(COMP)  D(EXTV)	1.420404 (0.45031) equation(s): egrating coefficing EXTV 0.000000 1.000000 0.000000 0.000000 icients (standard -0.202787 (0.05390) -1.314868 (0.43951) -0.797587 (0.45979) 0.468966	-0.101426 (0.22084)  Log likelihood  ents (standard error FIIF 0.000000  0.000000  1.000000  error in parentheses -0.028868 (0.02703) -0.641997 (0.22041) 0.295398 (0.23058) 0.440789	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  6) -0.069609 (0.02705) -0.198051 (0.22056) -0.954722 (0.23074) 0.131156	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000  0.000000  0.0000000  Adjustment coeff D(COMP)  D(EXTV)  D(FIIF)  D(FPER)	1.420404 (0.45031) Equation(s): egrating coefficing EXTV 0.000000 1.000000 0.000000 0.000000 icients (standard -0.202787 (0.05390) -1.314868 (0.43951) -0.797587 (0.45979) 0.468966 (0.40745)	-0.101426 (0.22084)  Log likelihood  ents (standard error refilf 0.000000 0.000000 1.000000  error in parentheses -0.028868 (0.02703) -0.641997 (0.22041) 0.295398 (0.23058) 0.440789 (0.20433)	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  6) -0.069609 (0.02705) -0.198051 (0.22056) -0.954722 (0.23074) 0.131156 (0.20447)	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000  0.000000  0.000000  Adjustment coeff D(COMP)  D(EXTV)  D(FIIF)	1.420404 (0.45031) equation(s): egrating coefficing EXTV 0.000000 1.000000 0.000000 0.000000 icients (standard -0.202787 (0.05390) -1.314868 (0.43951) -0.797587 (0.45979) 0.468966 (0.40745) 1.427022	-0.101426 (0.22084)  Log likelihood  ents (standard error refilf 0.000000 0.000000 1.000000  error in parentheses -0.028868 (0.02703) -0.641997 (0.22041) 0.295398 (0.23058) 0.440789 (0.20433) -0.024973	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  6) -0.069609 (0.02705) -0.198051 (0.22056) -0.954722 (0.23074) 0.131156 (0.20447) 0.116803	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000  0.000000  0.000000  Adjustment coeff D(COMP)  D(EXTV)  D(FIIF)  D(FPER)	1.420404 (0.45031) Equation(s): egrating coefficing EXTV 0.000000 1.000000 0.000000 0.000000 icients (standard -0.202787 (0.05390) -1.314868 (0.43951) -0.797587 (0.45979) 0.468966 (0.40745)	-0.101426 (0.22084)  Log likelihood  ents (standard error refilf 0.000000 0.000000 1.000000  error in parentheses -0.028868 (0.02703) -0.641997 (0.22041) 0.295398 (0.23058) 0.440789 (0.20433)	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  6) -0.069609 (0.02705) -0.198051 (0.22056) -0.954722 (0.23074) 0.131156 (0.20447)	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000 0.0000000 0.0000000  Adjustment coeff D(COMP) D(EXTV) D(FIIF) D(FPER) D(INFE)	1.420404 (0.45031) Equation(s): Egrating coefficing EXTV 0.000000 1.000000 0.000000 0.000000 icients (standard -0.202787 (0.05390) -1.314868 (0.43951) -0.797587 (0.45979) 0.468966 (0.40745) 1.427022 (0.44087)	-0.101426 (0.22084)  Log likelihood  ents (standard error refilf 0.000000 0.000000 1.000000  error in parentheses -0.028868 (0.02703) -0.641997 (0.22041) 0.295398 (0.23058) 0.440789 (0.20433) -0.024973 (0.22109)	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  6) -0.069609 (0.02705) -0.198051 (0.22056) -0.954722 (0.23074) 0.131156 (0.20447) 0.116803 (0.22124)	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000 0.0000000 0.0000000  Adjustment coeff D(COMP) D(EXTV) D(FIIF) D(FPER) D(INFE)	1.420404 (0.45031) Equation(s): Egrating coefficing EXTV 0.000000 1.000000 0.000000 0.000000 icients (standard -0.202787 (0.05390) -1.314868 (0.43951) -0.797587 (0.45979) 0.468966 (0.40745) 1.427022 (0.44087)	-0.101426 (0.22084)  Log likelihood  ents (standard error refilf 0.000000 0.000000 1.000000  error in parentheses -0.028868 (0.02703) -0.641997 (0.22041) 0.295398 (0.23058) 0.440789 (0.20433) -0.024973	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  6) -0.069609 (0.02705) -0.198051 (0.22056) -0.954722 (0.23074) 0.131156 (0.20447) 0.116803	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997	
D(INFE)  3 Cointegrating E Normalized cointe COMP 1.000000 0.000000 0.000000  Adjustment coeff D(COMP) D(EXTV) D(FIIF) D(FPER) D(INFE)  4 Cointegrating E Normalized cointe	1.420404 (0.45031)  quation(s):  egrating coeffici EXTV 0.000000  1.000000  0.000000  icients (standard -0.202787 (0.05390) -1.314868 (0.43951) -0.797587 (0.45979) 0.468966 (0.40745) 1.427022 (0.44087)  equation(s):	-0.101426 (0.22084)  Log likelihood  ents (standard error FIIF 0.000000  0.000000  1.000000  error in parentheses -0.028868 (0.02703) -0.641997 (0.22041) 0.295398 (0.23058) 0.440789 (0.20433) -0.024973 (0.22109)  Log likelihood  ents (standard error in the season of t	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  6) -0.069609 (0.02705) -0.198051 (0.22056) -0.954722 (0.23074) 0.131156 (0.20447) 0.116803 (0.22124)  -649.3181  in parentheses)	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997 (0.27228)	
D(INFE)  3 Cointegrating E  Normalized cointe COMP 1.000000 0.000000 0.000000  Adjustment coeff D(COMP) D(EXTV) D(FIIF) D(FPER) D(INFE)  4 Cointegrating E  Normalized cointe COMP	1.420404 (0.45031)  Equation(s):  egrating coeffici EXTV 0.000000  1.000000  0.000000  icients (standard -0.202787 (0.05390) -1.314868 (0.43951) -0.797587 (0.45979) 0.468966 (0.40745) 1.427022 (0.44087)  Equation(s):  egrating coeffici EXTV	-0.101426 (0.22084)  Log likelihood  ents (standard error FIIF 0.000000  0.000000  1.000000  error in parentheses -0.028868 (0.02703) -0.641997 (0.22041) 0.295398 (0.23058) 0.440789 (0.20433) -0.024973 (0.22109)  Log likelihood  ents (standard error FIIF	in parentheses)     FPER     0.070398     (0.11490)     -0.961793     (0.20151)     -0.165056     (0.24984)  i)     -0.069609     (0.02705)     -0.198051     (0.22056)     -0.954722     (0.23074)     0.131156     (0.20447)     0.116803     (0.22124)  -649.3181  in parentheses)     FPER	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997 (0.27228)	
D(INFE)  3 Cointegrating E Normalized cointe COMP 1.000000 0.000000 0.000000  Adjustment coeff D(COMP) D(EXTV) D(FIIF) D(FPER) D(INFE)  4 Cointegrating E Normalized cointe	1.420404 (0.45031)  quation(s):  egrating coeffici EXTV 0.000000  1.000000  0.000000  icients (standard -0.202787 (0.05390) -1.314868 (0.43951) -0.797587 (0.45979) 0.468966 (0.40745) 1.427022 (0.44087)  equation(s):	-0.101426 (0.22084)  Log likelihood  ents (standard error FIIF 0.000000  0.000000  1.000000  error in parentheses -0.028868 (0.02703) -0.641997 (0.22041) 0.295398 (0.23058) 0.440789 (0.20433) -0.024973 (0.22109)  Log likelihood  ents (standard error in the season of t	in parentheses) FPER 0.070398 (0.11490) -0.961793 (0.20151) -0.165056 (0.24984)  6) -0.069609 (0.02705) -0.198051 (0.22056) -0.954722 (0.23074) 0.131156 (0.20447) 0.116803 (0.22124)  -649.3181  in parentheses)	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997 (0.27228) INFE -0.471147	
D(INFE)  3 Cointegrating E Normalized cointe COMP 1.000000 0.000000 0.000000  Adjustment coeff D(COMP) D(EXTV) D(FIIF) D(FPER) D(INFE)  4 Cointegrating E Normalized cointe COMP	1.420404 (0.45031)  Equation(s):  egrating coeffici EXTV 0.000000  1.000000  0.000000  icients (standard -0.202787 (0.05390) -1.314868 (0.43951) -0.797587 (0.45979) 0.468966 (0.40745) 1.427022 (0.44087)  Equation(s):  egrating coeffici EXTV	-0.101426 (0.22084)  Log likelihood  ents (standard error FIIF 0.000000  0.000000  1.000000  error in parentheses -0.028868 (0.02703) -0.641997 (0.22041) 0.295398 (0.23058) 0.440789 (0.20433) -0.024973 (0.22109)  Log likelihood  ents (standard error FIIF	in parentheses)     FPER     0.070398     (0.11490)     -0.961793     (0.20151)     -0.165056     (0.24984)  i)     -0.069609     (0.02705)     -0.198051     (0.22056)     -0.954722     (0.23074)     0.131156     (0.20447)     0.116803     (0.22124)  -649.3181  in parentheses)     FPER	-0.588387 (0.12522) 1.005720 (0.21960) 0.861997 (0.27228)	

0.000000	0.000000	1.000000	0.000000	(0.37308) 0.587113	
0.00000	0.000000	1,000000	0.000000	(0.24561)	
0.000000	0.000000	0.000000	1.000000	-1.665397	
				(0.47532)	
Adjustment coeff	icients (standard	error in parenthese	es)		
D(COMP)	-0.291967	0.004411	-0.067172	0.034701	
	(0.06846)	(0.03097)	(0.02625)	(0.02431)	
D(EXTV)	-0.631632	-0.896962	-0.216717	0.483110	
	(0.56033)	(0.25346)	(0.21481)	(0.19893)	
D(FIIF)	-0.406159	0.149328	-0.965415	-0.225350	
	(0.59766)	(0.27035)	(0.22912)	(0.21218)	
D(FPER)	0.752832	0.334858	0.123401	-0.443527	
	(0.53105)	(0.24022)	(0.20358)	(0.18853)	
D(INFE)	1.293867	0.024717	0.120441	0.119716	
	(0.57714)	(0.26107)	(0.22125)	(0.20490)	

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