

IS OMAN AND INDIA HAVING SUFFICIENT BILATERAL TRADE?

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ABSTRACT

The aim of this paper is to investigate the interaction of bilateral trade and the degree of gravity effects between Oman and India. For this study we took two independent variables; Oman's GDP and India's GDP and one dependent variable, say, Oman's export, subsequently tried to measure its feedback effect. There are two equations applicable here as we hypothesize that Oman's exports to India is a function of Oman's GDP and India's GDP on specified period of time. There are 4 stages applied in this study. We did regression test for 4 stages, as total period of study, 1996-2014 is separated into 4 stages in order to know whether the result of the hypothesis testing, as gravity model states, explain that Oman's export to India is a function of Oman's GDP and Oman's export to India is a function of India's GDP. This study is not suggested the feedback effect or our hypothesis is not taken into account during Stage 1, Stage 3 and Stage 4, it is shown that there is not a statically sound relation between Oman's export and Oman's GDP and Oman's export and India's GDP during these periods. However, in stage 2, both hypotheses are valid as testing results agreed that there is a statistical relation between Oman's export to India with Oman's GDP and India's GDP. This paper concludes that gravity model or its relation, feedback effect, always not true with export performance of countries.

JELC: C3, C22, F43.

Key words: Trade relationship, bilateral trade, Oman, gravity model

1. Introduction

The Oman economy is a developing small open economy in the Middle East with notable oil and gas resources, and a considerable trade surplus. India could become the top exporting nation to Oman in the next five years, buoyed by the growing trade and economic ties between the two countries. Press Trust of India (2012). Hence, the structure and magnitude of trade between Oman and India during the period 2000's will be looked at this paper. Different institutional mechanisms like Joint Commission Meeting (JCM), Joint Business Council (JBC) have been set up to oversee economic cooperation between India and Oman. As this research is on Oman and India trade relations it is better to point out few prominent existing bilateral agreements; MoUs on Combating Crime, Cooperation in Agriculture, Civil Aviation, Cooperation between the State Audit Institution of Oman and the office of the Comptroller and Auditor General of India, Avoidance of Double Taxation, Bilateral Investment Promotion and Protection, Treaty of Extradition, MoU on Manpower, MoU on Joint Investment Fund and MoU on Cultural Cooperation, etc. An India-GCC framework agreement on trade is in place and negotiations are on for an FTA. Currently India is the third largest exporter of products and services to Oman. Indeed, foreign trade plays an essential role in determining Omani economic growth.

Mechanism of trade interdependence is applied in any bilateral trade. From literature reviews we took an explanation as follows: i) Oman's exports to its trading partners are officially determined by oil prices and the income of its trading partner. ii) The GDP of trading partners of Oman is a function of its exports to Oman (Omani imports) and to the rest of the world. Therefore, the raise in Omani imports will increase the income of its trading partners, which in turn results in an increase in their imports (Omani exports) from Oman. This is the

feedback effect. The rest of this paper will progress as follows; after the introduction, section two gives a brief review of relevant literature. Section three is an explanation of the direction of trade between Oman and India. A simultaneous equations model (gravity model) is developed in section four to test the interaction of international trade and the degree of feedback effects between Oman and India. Section five analyses the outcome of the model. The main conclusions are illustrated in section six.

2. A Brief Review of the Literature

The performance of foreign trade and its impact on economic growth has been the subject matter of a number of experimental studies. One may mention the contributions by Shaalan and Handy (1991), Al-Yousif (1997), Metwally, (2000), and Metwally (2004), among others.

Patterns of trade will be resolute by the aggregated preferences for goods within countries. Those countries with similar preferences would be expected to develop similar industries. With continued similar demand, these countries would continue to trade back and forth in differentiated but similar goods since both demand and produce similar products. Certain studies have found a significant impact of the Linder effect, but others have had weaker results. Studies that do not support Linder have only counted countries that actually trade; they do not input zero values for the dyads where trade could happen but does not. Staffan Linder (2004)

Shaalan and Handy (1991) argue that the rate of growth in government expenditure during the last three decades follows closely the rate of growth in oil exports in Oman, Saudi Arabia and the United Arab Emirates, but not in Kuwait. Al-Yousif (1997) investigates the interaction between exports and economic growth in several oil producing countries namely Saudi Arabia, Kuwait, UAE, AND Oman over the period 1973-1993. He applied aggregate production function model, which involved output, labour, capital, exports, government expenditure and terms of trade.

The reciprocal dumping model has held up to some empirical testing, suggesting that the specialization and differentiated goods models for the gravity equation might not fully explain the gravity equation. Feenstra, Markusen, and Rose (2001) provided evidence for reciprocal dumping by assessing the *home market effect* in separate gravity equations for differentiated and homogeneous goods. The home market effect showed a relationship in the gravity estimation for differentiated goods, but showed the inverse relationship for homogeneous goods. The authors show that this result matches the theoretical predictions of reciprocal dumping playing a role in homogeneous markets.

Trade relation studies using the gravity model have also sought to evaluate the impact of various variables in addition to the basic gravity equation. Among these, price level and exchange rate variables have been shown to have a relationship in the gravity model that accounts for a significant amount of the variance not explained by the basic gravity equation. According to empirical results on price level, the effect of price level varies according the relationship being examined. For instance, if exports are being examined, a relatively high price level on the part of the importer would be expected to increase trade with that country. A non-linear system of equations are used by Anderson and van Wincoop (2003) to account for the endogenous change in these price terms from trade liberalization. A more simple method is to use a first order log-linearization of this system of equations (Baier and Bergstrand (2009)), or exporter-country-year and importer-country-year dummy variables. For counterfactual analysis, however, one would still need to account for the change in world prices.

Metwally, (2000) applied the co-integration model by using the maximum likelihood technique in order to assess the long run relationship between oil exports and government expenditure in Gulf Council Countries (or GCC) during the period from 1974 to 1996. The model results show that the long run relationship between two variables existed in all cases with the exception of Kuwait.

Metwally,(2004) applied the Johansen multivariate co-integration technique to examine the long run relationship between spending on imports and instability of oil exports in GCC countries. The model included aggregate imports, real GDP, relative prices and lagged one year of depended variable. The empirical results of the study show that aggregate imports of GCC countries have been significantly affected by the downturn in oil

prices. In addition, investment is a key factor in aggregate imports in the long run in Kuwait and the UAE, while exports are a significant determination of aggregate imports in Oman.

More recently, Hakan and Ceylan (2005) applied the AVR model using data over the period from 1963 to 2003. The model consisted of variables such as GDP, exports, imports, net oil imports as a percentage of GDP and crude oil exports as a percentage of crude oil production. The study concluded that Algeria, Iran, Iraq, Jordan, Kuwait, Oman, Syria, Tunisia and the United Arab Emirates economies have been significantly affected by the fluctuations in oil prices in the world market. It also shows that the changes in oil prices had no impact on Bahrain, Egypt, Djibouti, Lebanon, Morocco and Yemen economies. See also, (Aljerayed, 1993; Rammadhan, 2000; Metwally, 2003), among others.

The literature on feedback effects of foreign trade has intensified during the past two decades Metwally and Vadlamudi (1992), Ardakani, (1996), Rammadhan (1999), Metwally and Tamashak (2001). Metwally and Vadlamudi (1992) developed a simultaneous equation model in order to test if there is a feedback effect of the trade relationship between Oman and Middle-Eastern countries during the period between 1971 and 1988. Their model consists of seven endogenous and four exogenous variables. The regression results of their model show that there is no feedback effect between Oman and these countries. This could be explained by the fact that the participation of Middle Eastern countries in Omani market is very small.

Based on the hypothesis that “exports lead to growth” Ardakani (1996) used the simultaneous equations model in order to evaluate trade relationship between Iran and its major trading partners. The empirical results show that Iranian GDP has been significantly affected by the exports of its main trading partners. Further, it confirms that Iranian oil revenue has been essentially influenced by the changes in oil prices. Moreover, he found evidence that exports have positive and extend impact on the rest of the economy.

Rammadhan (1999) examined the feedback impacts in GCC countries with its trading countries over the period from 1970-1996. The author applied the simultaneous equation model in order to evaluate the process of interaction between GCC and the rest of the world. The key findings of this study indicate that there is a significant feedback impact in GCC trade with its major trading partners namely the USA, the EU and Japan.

In 2001 the trade relationships between the GCC and the EU investigated by Metwally and Tamashak. They developed a simultaneous equations model in order to test for feedback impacts. The results of their study indicated that GCC exports have been significantly affected by the fluctuation in oil prices. It also, confirmed that significant feedback between GCC Countries and its major partners exists. See also Metwally and Tamaschke (1980) and Metwally (1988).

3. Direction of Trade between Oman and India

For Oman, India is the 3rd largest market for its exports, accounting for 10.2% of its global exports. For non-oil Omani exports during 2012, India was its largest destination. In terms of imports by Oman, India ranks 5th and is source of around 3.8% of Oman’s total imports. Total Volume of Bilateral Trade is US\$ 4.55 billion during 2012-13, Oman is the 40th largest trade partner of India; 34th largest market in the world for Indian exports; destination of more than 0.87% of India’s global exports and source of 0.4% of India’s global imports. India’s major imports from Oman are Petroleum, petrochemical products and fertilizers. India’s major exports to Oman are Machinery, electrical & electronic equipments, iron & steel products, synthetic fiber & yarn, textile and apparels, meat, coffee, tea, rice, plastic products and seafood. Oman Chamber of Commerce Bulletin (2013). If we look at Indian Investment in Oman, Oman India Fertilizer Company (OMIFCO), a US\$ 969 mn. joint venture with Oman Oil and Iffco & Kribhco (50:50). Jindal Shadeed Iron & Steel plant: a US\$ 464 mn. investment from Jindal Group of India. As of July 2010, there were 1537 Indo-Omani JVs in Oman of which Indian investment is estimated around US\$ 4.5 bn. On the other way Omani Investment in India gives an idea

that Bharat Oman Refinery Limited (BORL): a US\$ 2.4 bn JV between BPCL and Oman Oil Co. According to DIPP, FDI from Oman to India is US\$ 30 mn. The main Indian organizations/ companies in Oman: Air India, Jet Airways, IndiGo, LIC, Bank of Baroda, State Bank of India, New India Assurance Co, TCIL, Wipro, EIL etc. Oman Chamber of Commerce Bulletin (2013)

3.1 .New investments/joint ventures: India and Oman

India joint ventures across 13 socio-economic sectors in Oman. More than 130 large Indian companies were present in Oman and at least 30 Omani companies were active in the Indian market. Notable India-Oman Joint Ventures comprises a value of US\$ 969 million. Oman India Fertilizer Company (OMIFCO), India's largest Joint Venture abroad, started in August 2002 at Sur, Oman, with formal inauguration on January 28, 2006. IFFCO and KRIBHCO are equal partners in the venture with Oman Oil Company, which is the Omani Government's main investment arm. Under a long term buy back agreement, India imports the entire production of 1.6 MTs of granulated urea and 0.255 MTs of ammonia from Sur plant. (Times of Oman, 2012) Bharat Oman Refineries Limited (BORL), a company promoted by Bharat Petroleum Corporation Limited (BPCL) and Oman Oil Company Limited (OOCL), has set up a 6 MMTPA grassroot refinery at Bina in Sagar district of Madhya Pradesh along with crude supply system. In May 2011, BORL, a US \$ 2.4 billion project, was inaugurated. Jindal Steel & Power Ltd.(JSPL) acquired the Oman-based Shadeed Iron & Steel Co LLC for \$ 464 million. Shadeed was owned by Abu Dhabi's Al Gaith Holding PJSC and is at present operating 1.5 MTPA gas based hot briquetted iron plant at Sohar Industrial port area of Oman. In July 2010, final documents relating to Indo-Oman Joint Investment Fund have been signed in New Delhi. State General Reserve Fund from Oman and State Bank of India from India are the operating parties of the Fund. The Fund has started its operations, with initial seed capital of US\$ 100 million and has the provision to go up to US\$ 1.5 billion, through a Mumbai headquartered Management Company. There is prominent Indian presence in various sectors like oil & gas, mining, manufacturing, IT & telecom, power & water, construction, real estate & consultancy, healthcare, warehousing & logistics, railway sector and steel etc. Indian companies have strengthened their presence in Oman with securing prestigious contracts. Times of Oman, (2014)

Mitsubishi Heavy Industries (MHI) announced that MHI and Suhail Bahwan Group (SBG) of Oman established a joint venture (JV) engineering company to participate in India's industrial and infrastructure projects. The new company, MHI Engineering and Industrial Projects **India** Private Limited (MEIP), has been set up with initial capital of US\$ 20 million during September 2011. Sohar Industrial Port Company signed an agreement with Indian steel casings manufacturer Dunes Industries. The latter will set up an \$ 8 million steel foundry at the free zone Sohar in Oman to cater to the growing West Asian market. Khimji Ramdas Shipping, which has set up a JV in partnership with India-based Ocean Sparkle called Khimji Sparke LLC, was awarded a long-term contract to provide tugboat services to support the operations of the world-scale ship repair facility of the State-owned Oman Dry-dock Company (ODC) which owns and manages the Duqm ship repair facility. Tata Global Network (TGN) cable in the Gulf connected to the Nawras network, their landing party in Oman. The new cable link will be used to instantaneously route traffic from Nawras customers in Oman to Mumbai, in India and onwards to the rest of the world, via TNG during 2011 (Oman Chamber of Commerce and Industry Bulletin-2011) Omani Companies in India are present in diverse areas like oil & gas, manufacturing, IT & telecom, hospitality, healthcare and financial services etc. Indian financial institutions in Oman are Bank of Baroda since 1975, State Bank of India since 2004, New India Assurance Company and LIC. ICICI Bank, which has a representative office in Oman. Oman Chamber of Commerce and Industry Bulletin (2012)

3.2. Volume of Trade between Oman and India

In 2012, Indian imports from Oman stood at \$2 billion while exports were \$2.6 billion. Meanwhile, in 2013, Indian imports from Oman totaled \$2.95 billion while exports to Oman was \$2.81 billion, (Times of Oman-2013). A recent statement issued by the Indian Ministry of Trade and Industry revealed that trade value between India and the Gulf Cooperation Council (GCC) countries also increased from 2012 to 2013. (Times of Oman 2013). According to UNCTAD's World Investment Prospects Survey 2012–2014, India is the third-most

attractive destination for FDI (after China and the US) in the world. Overseas direct investments by Indian companies stood at \$ 1.59 billion in May 2014. World Wide Business House (2014).

India-Oman Joint Investment Fund having commenced disbursements to projects during 2012 is expected to complete deployments of the first tranche by 2013-14, and thereafter move to the second tranche. The Oman-India trade ties are set to grow further with the two sides willing to add figures on the ever high export-import trade last year. (Report, World Wide Business House, 2013-2014). Oman as the second largest GCC investor in India and records that Oman's cumulative FDI has grown from \$24 million in 2005 to \$340 million as of January 2012. Capital Investment Bank's report (2012).

India has been a major exporter to the Sultanate, emerging as the fourth-largest source of imports into Oman in 2012 after Japan, USA and Saudi Arabia. The sectors that will see a synergy of growth between India and Oman are ICT, health, tourism and infra development along with manufacturing and development of existing trade. In addition, there will be collaboration for specialized services, technology and knowhow on specific areas such as agriculture, marine, mining and industry, and telecom, power, water, construction, real estate and consultancy, health care, warehousing and logistics, the railway sector, steel and others. The balance of trade is in India's favor due to increases in exports of mineral fuels, mineral oils and products of their distillation. Non-oil Omani exports to India during the year 2012 registered a growth of 48.1 per cent to reach OMR611.6 million, against the figure of OMR413.1 million during the previous year. Capital Investment Bank's report (2012).

The value of India's trade with Oman has surged by 129 per cent during the five-year period from 2008-09 to 2012-13 (Report, Ministry of External Affairs India, 2013). During 2012, India emerged as the top destination for Omani non-oil exports surpassing the UAE and Saudi Arabia, and non-oil exports from Oman to India jumped 48.1 per cent to 611.6 million Omani riyals from 413 million riyals in 2011 (Oman Daily -2013). Omani Companies in India are present in diverse areas like oil and gas, manufacturing, IT and telecom, hospitality, health care and financial services.. India's exports to Oman almost doubled (96.6 per cent) during 2012-13 as compared to the previous year. It was \$ 1322.13 million in 2011-12 and has risen to \$ 2599.49 million in 2012-13. Oman Daily (2013).

Bilateral trade between the two countries was around \$ 5 billion in the financial year 2012 and Oman as the second biggest GCC investor in India and recorded that Oman's cumulative FDI has grown from \$ 24 million in 2005 to \$ 340 million as of January 2012. (Capital Bank Report-2013). Bilateral trade between India and Oman grew 25 per cent in 2013 as compared to 2012 (Capital Bank Report-2013). India-Oman bilateral trade in the financial year 2012 was \$4.6 billion and it was \$5.76 billion in the financial year 2013. Indian imports from Oman stood at \$2 billion while exports were \$2.6 billion. Meanwhile, in 2013, Indian imports from Oman totaled \$2.95 billion while exports to Oman were \$2.81 billion. Capital Investment Bank's report (2013).

Table -1. Bilateral Trade Flow (India and Oman) of 2008-2013
Figures in US\$ million

S.No.	Year	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
1.	EXPORTs to Oman	779.04	1,032.93	1,086.48	1,322.13	2,599.49
2.	%Growth		32.59	5.18	21.69	96.61
3.	India's Total Export	185,295.36	178,751.43	251,136.19	305,963.92	300,400.68
4.	%Growth		-3.53	40.49	21.83	-1.82
5.	%Share	0.42	0.58	0.43	0.43	0.87
6.	IMPORTs from Oman	1,205.46	3,499.89	4,002.07	3,345.94	2,009.72
7.	%Growth		190.34	14.35	-16.39	-39.94
8.	India's Total Import	303,696.31	288,372.88	369,769.13	489,319.49	490,736.65
9.	%Growth		-5.05	28.23	32.33	0.29
10.	%Share	0.40	1.21	1.08	0.68	0.41
11.	TOTAL TRADE Balance	1,984.50	4,532.82	5,088.55	4,668.08	4,609.21
12.	%Growth		128.41	12.26	-8.26	-1.26
13.	India's Total Trade	488,991.67	467,124.31	620,905.32	795,283.41	791,137.33
14.	%Growth		-4.47	32.92	28.08	-0.52
15.	%Share	0.41	0.97	0.82	0.59	0.58
16.	TRADE BALANCE with Oman					589.78
17.	India's Trade Balance	-118,400.95	-109,621.45	-118,632.94	-183,355.57	-190,335.97

Note: Since 2006-07, Petroleum figures are being computed from Import Daily Trade Returns (DTRs) to generate country-wise/port-wise tables.

Source: DGFT

The table.1.Bilateral Trade Flow (India and Oman) of 2008-2013,shows that during the five year period from 2008-09 to 2012-13, the India-Oman bilateral trade has increased by 129%.A statement issued by the Indian Ministry of Trade and Industry revealed that trade value between India and the Gulf Cooperation Council (GCC) countries also increased from 2012 to 2013.According to sources the total bilateral trade between India and Oman is 1.99billion dollars in 2008 and 4.53\$billion, 5.09\$billion, 4.65\$billion, 4.55\$billion during 2009,2010,2011,2012 and 2013 respectively (Report- India's Directorate General office of foreign trade-2014)

We have seen that India Oman bilateral trade connections are booming. We expect that next 15 years the ties will be more fruitful to both countries as Oman economy is preparing to be more diversified in its production as to be ready for challenges faced through the depletion oil resources and the dip in the oil prices. Oman Government is trying to develop entrepreneurship activities and enhance manufacturing initiatives. So we can expect more volume trade among both countries in the near future.

Let us look at a model of bilateral trade between India and Oman during 1996 -2014.

4. Research Methodology

4.1. Overview on basic Gravity model of International trade

We took basic gravity model which is first used by Tinbergen (1962) for testing the relation between independent variables and the dependent variable in this paper.

The basic gravity model for trade between two countries (i and j) takes the form of:

$$F_{ij} = G(M_i^{\beta_1} M_j^{\beta_2} / D_{ij}^{\beta_3}).$$

Where F is the trade flow, M is the economic mass of each country, D is the distance and G is a constant. The model has also been used in international relations to evaluate the impact of treaties and alliances on trade. The gravity model has been used to test hypotheses rooted in purer economic theories of trade as well (Al-Yousif, K. (1997).The gravity model states that the size of trade flows between two countries is determined by supply conditions at the origin, demand conditions at the destination and stimulating or restraining forces related to the trade flows between the two countries (Glink and Rose(2002) Core explanatory variables used to explain the volume of trade across a pair of countries are measures of economic size of trading partners and of the distance between them. Bougheas et al. (1999), De Grauwe and Skudelny (2000), Glink and Rose (2002) and De Sousa and Disdier (2002).

For this study we took two independent variables, Oman's GDP and India's GDP and one dependent variable, say Oman's export, and tried to measure its feedback effect.

$$y_{hft} = \alpha_0 + \theta t + \beta_0 1_{txhft} \text{ for } h = 1, \dots, N, f = 1, \dots, N, h \neq f, t = 1, \dots, T$$

Where y_{hft} is the dependent variable (say, the volume of trade from home country h to target country f at time t), x_{ht} , x_{ft} are explanatory variables with variation in h or f and t (say, GDP in this case). This equation gives us an idea about the mechanism of trade interdependence or the feedback effects. There is two equations are applicable here as we hypothesis that Oman's exports to India is a function of Oman's GDP and India's GDP on specified period of time. There are 4 stages are applied in this study. We did regression test for 4 stages, as total period of study, 1996-2014 is separated into 4 stages in order to know whether the result of the hypothesis testing, as gravity model states, explain that Oman's export to India is a function of Oman's GDP and Oman's export to India is a function of India's GDP.

5. Data and Empirical Results

We uses the data covering a period from 1996–2014, which was obtained from the AMF Database; the IMF, the Direction of Trade Statistics Yearbook, and the UN Database, India, Oman statistical books, Commerce bulletins etc. to analyse the trade interaction between Oman and its one of the major trading partner India and to test the feedback effects.

The stage 1 (Year 1996-1999)

Hypothesis 1: Oman's exports to India is a function of India's GDP

We hypothesised that Oman's exports to India is affected by the level of India's GDP. We took this hypothesis to know whether India's income is a major determinant of Oman's exports to India. Our findings in Stage 1 (year 1996-1999) shows that statistically there is not a significant relation between Oman's export to India and India's GDP. An increase in a country's income will cause an increase in its imports from other countries (Hakan and Ceylan (2005). As per Hakan and Ceylan(2005), India's income might be a major determinant of Oman's exports to that country. But our results suggest that Oman's exports to India are not affected by the level of India's GDP in Stage 1. This might be explained by the fact that the Omani economy is linked with the Indian economy by several trade agreements.

Hypothesis 2: Oman's Export to India is function of Oman's GDP

Our findings shows that in Stage 1 (Year 1996-1999) Oman's export to India is not a function of Oman's GDP according to the regression analysis. May be many other factors are affecting the export performance of Oman against India.

The Stage 2 (Year 2000-2004)

Hypothesis 1: Oman's exports to India is a function of India's GDP

The hypothesis testing results shows Omani exports to India are affected by the level of India's GDP. The coefficient in the regression analysis suggests that India's GDP function is statistically significant in which suggests the existence of feedback effects. Oman's export to India is a function of Indian's GDP during Stage 2. So we can conclude that India's income is a major determinant of Omani exports to that country. So we can agree on Hakan and Ceylan study (2005) which states that an increase in a country's income will cause an increase in its imports from other countries.

Hypothesis 2: Oman's Export to India is function of Oman's GDP

Our findings shows that in Stage 2 (Year 2000-2004) Oman's export to India according to regression results is a function of Oman's GDP. Which suggests the existence of feedback effects? Oman's export to India is a function of Oman's GDP as well during Stage 2.

The Stage 3 (Year 2005 -2008)

Hypothesis 1: Oman's exports to India is a function of India's GDP

We hypothesised that Omani exports to the India are affected by the level of India's GDP. The India's income is a major determinant of Omani exports to that country. We test the feedback effect between Omani economy and its trading partner India. If the regression coefficient is statistically significant, then, it is safe to conclude that, there is a feedback effect between Oman and its trading partner, Metwally (1993). But in stage 3 it is suggesting that there no statistically significant relation between Oman's export to India and India's GDP. Indian Oman trade agreements might be a good reason for this trade flows.

Hypothesis 2: Oman's Export to India is function of Oman's GDP

Our findings shows that in Stage 3 (Year 2005-2008) Oman's export to India according to regression results is not a function of Oman's GDP. May be many other factors are affecting the export performance of Oman against India.

The stage 4 (Year 2009 -2014)

Hypothesis 1: Oman's exports to India is a function of India's GDP

We hypothesised that Omani exports to the India are affected by the level of India's GDP. The India's income is a major determinant of Omani exports to that country. We test the feedback effect between Omani economy and its trading partner India. If the regression coefficient is statistically significant, then, it is safe to conclude that, there is a feedback effect between Oman and its trading partner, Metwally (1993). But in stage 4 (2009-2014) it is suggesting that there no statistically significant relation between Oman's export to India and India's GDP.

Hypothesis 2: Oman's Export to India is function of Oman's GDP

Our findings shows that in Stage 4 (Year 2009-2014) Oman's export to India is not a function of Oman's GDP according to regression results. May be many other factors are affecting the export performance of Oman against India.

6. Conclusion

This study was motivated by the need for an in-depth empirical investigation examining the trade interdependence between Oman and its trading partner India if there are any feedback effects. We took GDP and export data for Oman and India for 18 years starting from 1996 to 2014. We regressed the depended variable (Oman's Export) with independent variables; Oman 's GDP and Indian GDP. We hypothesised that Oman's export is a function of Oman's GDP and Indian GDP for the Stage 2(2000-2004). However, this study is not suggested the feedback effect or our hypothesis is not taken into account during Stage 1, Stage 3 and Stage 4, it is shown that there is not a statically sound relation between Oman's export and Oman's GDP and Oman's export and India's GDP during this periods. This could be explained by the fact that Omani economy depends so heavily on oil revenue; hence, it is necessary for Oman to continue exporting its oil independently of oil prices. Moreover, Indian economy is based on service sector and manufacturing sector majorly contributes to Indian GDP. However, in stage 2, our both hypothesis is true as testing results agreed that there is a statistical relation between Oman's export to India with Oman's GDP and India's GDP. This paper concludes that gravity model or its relation, feedback effect, always not true with export performance of countries. If we look at a county's trade performance in different stages, yearwise, we can find out discrepancy in this relationship. Many factors other than GDP like exogenous variables are behind the trade outcome of an economy. In addition, each year the export value will be different according to the policies and programmes which are following a particular economy. It is certain that Oman's export flow to India might have changed after it became a member of WTO in year 2000 and same is applicable to India as well as it became a member of WTO in the year 1996. Accademics can looks at these areas and the future scope of this paper would be high.

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